

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. XXIV

MARCH—APRIL, 1922

No. 2

When the Birds Come North

By GRACE A. HILL, Pullman, Wash.

ONE cold day in April, while we were having a snowstorm, the Eider Ducks began to pass Synuk (a native village 30 miles north of Nome). The Eskimo children said "ropes and ropes of them." They flew over the frozen ocean about a quarter of a mile from the shore. For over a week there was no time in the day when at least one black cloud was not visible drifting past, and often for hours at a time there was a constant procession. While they did not form the V of many migrating birds, they seemed to follow a general head and often several long 'ropes' trailed out behind the flock. In these the birds followed each other so precisely that the lines swept and curved with as perfect undulations as though they were ribbons blown in the breeze. Some of the Eskimo men hid, with their rifles, under projecting pieces of ice, in the zone over which the birds were passing. Soon they returned with as many Ducks as they could carry—whereupon the village had a period of feasting. Contrary to what might be expected, the birds were fat, and their flesh, unlike that of the same birds in the fall, was of good flavor.

The male King Eider, when he comes north, is a beautiful bird, with orange-yellow ear coverts, a lavender crown with soft green side-stripes, and a warm cream-colored breast. He has a white patch on each wing and white tail coverts, and for the rest is shining black. Before he goes south in the fall, however, he has changed this gay attire for a plain brown dress much like that which the female wears north.

Practically all of the Eiders passing Synuk were King Eiders. A small flock of the Northern or Greenland Eiders, however, summered on Sledge Island (an island in Bering Sea about five miles from the village).

At Synuk the ocean ice breaks up about June 1. For a week the flocs drift about near the shore or lie idly basking in the sun, and for the only week in the year when not ice-bound the habitually stormy water is held in subjection. The birds seem enamored of this smooth sea, with its floating ice-cakes, and go drifting back and forth over its surface. For many it is still the vacation period, before the nesting-time. Their cries make a rare medley. There is the

strange screaming of the Loons, the harsh *te-ar-r* of the Terns, the weird *oo, oo, oo-a-oo*, of the Old Squaw Ducks, the more or less distinguishable notes of the other Ducks and of the Geese, all mingled with the constant shrill crying of the Gulls.

Quickly the scene changes. The ice goes out, perhaps in a night, to leave a stormy water. The birds disperse to their nesting-places, and only the eternal Gulls go dipping and sailing by, with now and then an energetic trio of Loons.

Simultaneously with the game-birds come the little songsters. A young native once told me that these birds come on the backs of the large ones. He



GULLS AT SEWARD, ALASKA
September 3, 1916

declared that he had many times seen several small birds on the back of one large Goose. The idea is, however, no more strange than that such frail creatures can cover so vast a distance, in a stormy season, and over a frozen forbidding land.

When the birds arrive in the Arctic the only food for them is to be found where the snow has melted from the small tufts or 'nigger-heads' of the tundra. Indeed, the birds always seem to arrive in advance of the first bare spots. On these spots are last year's seeds and berries. It is not uncommon, when walking over the tundra in May, to come upon one of these bare spots and startle a cloud of birds into flight.

When viewed from the Arctic standpoint, a bird's life does not appear to be all joyous and easy. To rear her young under the most favorable circumstances she leaves the land of easy food and warmth and sunshine to face privations and hardships. She beats her way north, often against stormy winds, and arrives in the land of her destination to find it ice-bound. But she must not delay her departure for her tired body must be rested before the snow has gone and nest-building time is upon her, for then there will be no time to

lose, else her birdlings will be too small to take the trip when the brief summer has passed.

There is, however, one really joyous time in the north. It is the mating season. The tundra is then in a social whirl. The air seems fairly alive with darting singing birds. Then, too, the birds are dressed in their gayest plumage. Those who know them in the south would scarcely recognize them now.

If you walk out on the tundra toward the last of May you may imbibe some of this joy of living. Here, near you, is your old friend the Robin, in his rejuvenated dress of red and black and gray. Not far from him, in plainer attire, is his mate. He approaches her with a short, quick run and then, tilting his head, carols her a sweet if monotonous little song, *Hurree, hurree, hurree, hurree, hurree*. After a second she gives her answer. It is merely a little run, the length of his and from him. He repeats his maneuver and she hers.

Your attention is called here to a series of low musical whistles. All about you are little gray birds soaring and swooping. They are the Pectoral Sandpipers and the whistle is a mating season accomplishment of the male. It is the most characteristic sound of the tundra at this season. When you tip your head to watch these birds, and hold your breath that they may come near, you are suddenly rewarded for your silence from an unexpected quarter. Upon a knoll at your very feet a beautiful Longspur swells his throat in a torrent of glad song. Then he rises slowly in the air and, after pausing a moment on vibrant wings, floats gently back to his place, singing the while his limpid melody.

Before long the gay season will be over and the birds will be as quiet as though they were sleeping. The realization of their mission is now full upon them. Above them ever circles the watchful Jaeger. Some family must be left bereaved if he is to dine. The Arctic Owl, too, who now must hunt in the daylight, there being no darkness, does so alarmingly well. Besides, a sly little, gimlet-eyed ermine is some place noiselessly stalking through the tundra grass. There are no snakes, however, which should considerably gladden the heart of a brave little mother bird.

Between the first and the middle of June let us again walk upon the tundra. It is gay now with sunshine and beautiful nodding flowers. There are some butterflies, too, and big busy bumble-bees. You must walk warily for from under your very feet now and then will flit one of the many little somber-colored birds that nest on the tundra. Among the most common are the Savannah Sparrow and the White- and the Golden-crowned Sparrows. If you stop and search patiently for a minute you will find, cleverly concealed by dead grass, an exquisitely neat little nest. It is lined with down and the woolly tops of the cotton grass, and every tuft of down and silky thread is precisely where it should be. The nest will probably contain three or four small mottled eggs. In a week or two, if you walk again, you will see the naked, open-mouthed birdlings.

Almost before we realize it, the brief summer is passing; heavy frosts are upon us. Then there are twitterings and consultations—and suddenly the song-birds have gone.

The Arctic song-birds often elude classification. Their characteristics peculiar to the mating season are apparently not always well known to the ornithologist in the south.

Among the larger birds that visited us were the Emperor Goose, Canada Goose, Old Squaw or Long-tailed Duck, Pintail (nesting near the village), and the Mallard. I saw only one Canada Goose in our vicinity, a crippled gander feeding by himself in a stream-bed. The Red-faced Cormorant and the Black-throated and the Red-throated Loons nested on Sledge Island. On June 16 a native shot a Whistling Swan on a lagoon back of the village. The bird measured 56 inches and weighed, when dressed, eighteen pounds. On the lagoons we had both the Northern and the Red Phalarope. Back of the village, on Bolder Creek, the little Sanderling nested. We also had the Pectoral Sandpiper, the Dowitcher, and the Hudsonian Curlew. On lonely hillsides the Golden Plover ran, uttering its sweet wild *ter-lee*. Our most common Gull was the Herring Gull. Back on the banks of Synuk River nested that little desperado, the Arctic Tern. He darts at the heads of passers-by, and the Eskimos believe he wishes to pick out their eyes.

When the game-birds go south, they do not leave so unpretentiously as do the little songsters. The Sandhill Cranes were apparently the first to go. The miners who are back among the hills, where are their nesting-places, say they begin to congregate several weeks before they migrate. Some convenient hillside is the meeting-place, and here there is much noisy coming and going. Early and late they keep up a constant clamoring, consulting and arguing. At times, too, a large party will make a short tour, perhaps trying out for captaincy. In due time the plans are complete. The flock rises in the air, all the while bidding us a noisy good-bye. They stretch their long necks like magnetic needles to the south, and they are off. There is no changing of plans now. There is no returning for something forgotten or a new start. They have gone and we will see no more of them for seven long months. The Swans are the next to go, flashing their great white wings against the blue sky. Then quickly follow the Ducks and Geese.

Of all the birds who come to us, I should dislike most to miss the passing of the Canada Goose; and, indeed, they would not have us miss them. Their honking may be heard before they are in sight, and it swells in volume until the great flock in a symmetrical V, their strong wings beating the air in unison, sweeps overhead. They are the embodied spirit of the changing seasons. When they have gone, the portals of the Arctic, which opened in the spring to let the birds come north, close again behind them.

The Friendly Phœbe

By CLINTON G. ABBOTT

With Photographs by the Author

UNTIL we opened our summer home on May 15, the Phœbes had the broad veranda all to themselves. From their nest on a pillar in the corner, they could look peacefully out over smooth walls and floor, unbroken even by the presence of a chair; and this empty 'cavern' doubtless suggested to their minds an admirable counterpart to the weather-worn cliffs where their ancestors had placed their nests for generations before man began to build houses and verandas.

Then in a day all was changed. Awnings, rugs, and becushioned chairs suddenly appeared, of a brilliance quite unsuited to the taste and nerves of a demure Phœbe. The 'cleaning ladies,' who prepared the house for our arrival, apologized that they had not removed the unsightly mass of moss and mud from the pillar top, because "they were not sure that Mr. Abbott would want to have a bird's nest destroyed." They were right; Mr. Abbott and his whole family found the nest a center of great interest and education from the very first day.

The initial problem was to see whether the Phœbes, who had five eggs in their nest, could adjust themselves to the sudden and complete change in their immediate surroundings. More terrifying than the furniture were now, doubtless, the people who constantly moved to and fro upon the veranda. The children, who seemed to have a way of wanting to play directly beneath the nest, must have been particularly disquieting. Certainly the first few days following the arrival of the human family were hectic ones for the naturally retiring Phœbes. At every opening of a screen-door—even at the moving of a book—Mrs. Phœbe would spring from her nest in alarm. Then a long period of hesitation and tail-twitching would ensue before she could pluck up courage enough to return to her eggs. She would flit nervously to the tip of a young spruce, then to a syringa bush, then to the rain-water gutter, then back again to the spruce—and repeat the round. Sometimes she would thoughtlessly settle for a moment upon one of the outer branches of a certain lilac bush, only to be promptly ousted, with loud bill-snappings, by a pair of irate Robins who had their home there.

It was almost pathetic to watch the poor Phœbe's mental conflict between the instincts of self-protection and love for her eggs, and more than once we really hoped that she would abandon the struggle, with consequent peace of mind, not only to herself, but us! Indeed, once or twice we were sure that she had reached this decision, when she remained absent from the veranda for hours, and could be observed in the distance playfully twittering and caressing her mate, as though in anticipation of a fresh nest. But nightfall always found her back upon her eggs, and to her credit let it be said that within a week

she had succeeded in completely readjusting herself to the new conditions. From her original shy and timid self, she was metamorphosed into quite a different type of bird, stolidly remaining seated upon her nest regardless of sudden noises or the movements of people. Persons could now stand and converse unheeded, though their heads were but a few inches from her. Even the activities of our dog—formerly the cause of especial alarm—were calmly observed by merely cocking her head over the edge of the nest.

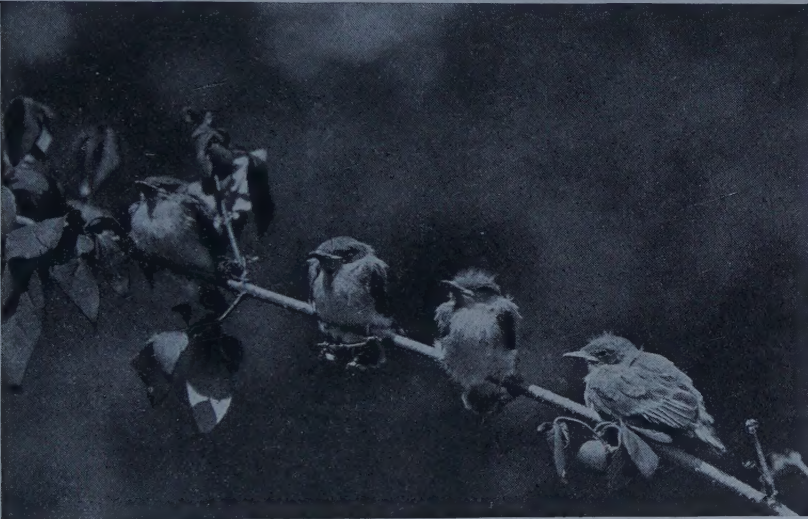


TWO PHOEBE POSIES

In spite of fears we had entertained as to possible chilling of the eggs, the babies were all successfully hatched. They were tended with utter fearlessness by their parents, who now continually used the backs of veranda chairs as resting-places en route to and from the nest. Persons—even whole tea parties—were ignored, except that once or twice we thought we detected a tone of annoyance in the Phoebe's voice upon finding a favorite chair occupied! No particular objections were raised by the parent birds when we wanted to exhibit their little family to visitors, which was done by holding a hand mirror above the nest.

It happened that the rose bushes which bordered the veranda had been

injured by frost during the previous winter, and many dead shoots extended above the green foliage. Upon these shoots the Phœbes also very often alighted, when bearing food to their young and, after the food was delivered, it was common for them to drop again to one of these perches for a brief reconnoissance of the field before starting off on another air-raid. As the rose bushes were in the sun, we saw here an opportunity for photography, and therefore pruned off all the bare shoots but one—a conspicuous and favorite one below the nest. The sole resting-place we had left was entirely satisfactory to the Phœbes, and they used it frequently. By setting the camera on the veranda and focusing it upon the dead shoot, it was a simple matter to secure close-up and characteristic portraits, without blind or concealment.



PATIENCE—ON A TWIG

When it became evident from the restless shifting of the young Phœbes in the nest that they would soon be leaving their already overflowing cradle, we decided to add their picture to the series we had already secured of their parents. So we gently removed them from their nest and arranged them on a branch before the camera. During this operation one of the five escaped from us by flying over the hedge and becoming lost in the standing hay, but we photographed the four others in various poses, and then returned them to their nest. Only two of them were content to remain in their old nursery, however, and then only one night longer. For several days thereafter we often saw all five of the birdlings, whose unceasing demands upon their parents kept them hustling for food. We never observed any of the babies attempt to gather a meal for himself, though sometimes one of them would follow the flight of an insect with an interested movement of his head.

Then, with that suddenness which is one of the mysteries of the bird world,

all the youngsters disappeared, and the old Phœbes were busy with preparations for a second brood. With incredible ease they repaired the crushed and soiled nest, so that it looked as good as new, and in due time it contained two eggs. The following day the nest again was empty. What had become of the eggs?

How often the bird student encounters this same problem—unaccountable disappearance, between successive visits, of the eggs in a nest he has under observation. For want of better explanation, he attributes it to 'the tragedies of bird life.' But may it not be that for reasons not clear to us birds sometimes devour their own eggs? We are told that the rabbit, a herbivorous rodent, will eat her newborn young if she fancies that they are in danger. It is no more difficult to believe that birds might make away with their eggs in the same way. Certainly it seems difficult to explain otherwise the sudden disappearance (as not infrequently happens) of eggs in a cage-bird's nest, where only one pair of birds occupies the breeding-cage. For that matter, the Phœbe's nest had almost the security of a cage. Perched high on the top of a smooth pillar, its upper edge was only a couple of inches from the veranda ceiling; and no known enemies lived close by—not even a House Wren.

At all events, as was to be expected, the nest was now 'hoodooed' and was deserted. The pair of Phœbes remained about, however, and we soon began to notice scraps of moss and other nesting material blown by the wind across the veranda floor. Investigation showed that the birds were evincing interest in the top of the next pillar, this time having selected that portion which was outside the awning and hence invisible from the veranda. The expression 'evincing interest' is used, because it could not in any sense be said that the Phœbes were building. Sundry wisps of vegetable matter would be laid in haphazard manner upon the flat top of the pillar, only to be carried away by the next breeze. We believe that the Phœbes were merely experiencing the half-hearted nest-building instinct, of which birds are sometimes possessed in the fall, and which is manifested by aimless picking up and dropping of straws, and the like.

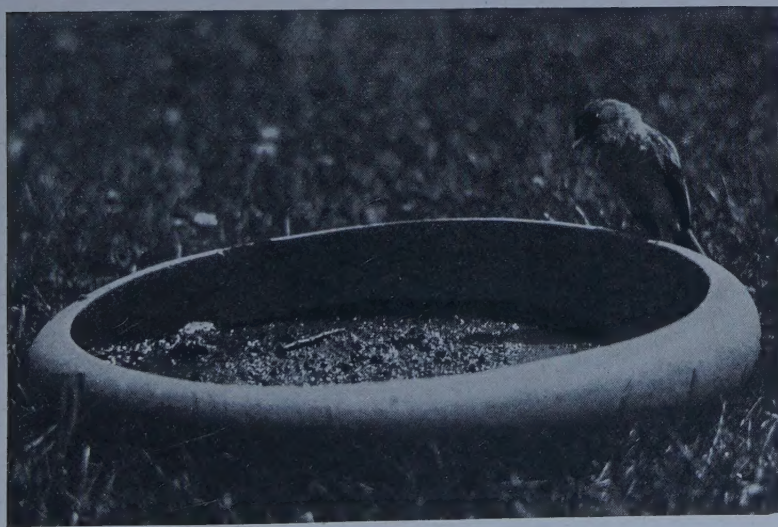
But when these activities were maintained with some persistence for about three days we began to seek a definite cause for their lack of success. So far as quantity of materials was concerned, there could be no criticism; but each load would be gone when the next arrived. Why, we thought, do they not make the usual foundation of mud, by which to anchor the rest of the structure? Then the truth dawned. It was in the midst of the long-protracted drought for which the summer of 1921 will long be remembered, and mud was a commodity not to be had except near large and constant bodies of water. We figured that it was at least a quarter of a mile to the nearest stream, and this was probably beyond the Phœbes' radius of operation.

We decided to try an experiment to help the birds. Moving a bird-bath from another part of the garden, we mixed therein a mud-pie of delightful

moist consistency, and placed it upon the lawn close below the Phœbes' chosen pillar. To make sure that our home-made mud should consist of the ingredients that most appeal to a Phœbe, part of the bath-tub contained dissolved portions of the original Phœbes' nest. Did our feathered friends make use of this assistance? In the language of the day, I'll say they did. Within a few minutes they discovered our offering, and thereafter the trips from bowl to pillar were made with almost feverish continuity and speed.

In the joy of the new-found mud, Mrs. Phœbe (we assumed it was Mrs. who seemed to do most of the building) splashed a veritable circle of mud about her scene of operations on the new pillar top. In a surprisingly short time the foundation of the nest was built. Indeed, so rapidly was the work done that we unwittingly allowed the best opportunities for photography to pass unused, and the only picture we got of the Phœbe at her mud-bath was late in the day when the light was poor.

As for the further history of our friendly Phœbes, they simply 'lived happily ever after.' Four eggs were laid in the new nest, duly replaced by four healthy birdlings who started their careers in the great wide world on the morning of August 1.



AT THE MUD BATH

Caught in a Springtime Blizzard

By MARGARET A. BARTLETT, Boulder, Colo.

A BLIZZARD occurring in the midst of spring, after weeks of warm, mild weather, when the grass has grown green, the crocuses and daffodils have blossomed and passed by, and the leaf-buds on the trees and bushes have swelled and partly burst from their wrappings, is hard enough on human beings who have emerged from their winter's shell, only to be driven back, but to the birds who have arrived from the Southland, such a storm spells suffering and disaster. Yet just such a storm occurred in the mountain states of the West the latter part of April, 1920. Larks, Robins, Killdeers, Bluebirds, House Finches, all had been with us for more than a month. Morning after morning we had been awakened by their songs. The House Finches, merry little carollers, had even begun the construction of a nest in a pocket formed by the close-clinging limbs of a poplar tree. "Summer is coming, and springtime is here!" was the thought continually with us.

And then came a sudden drop in temperature, a cold wind, and snow. For two nights and a day it snowed without ceasing, and for still another twenty-four hours the wind blew relentlessly, piling the snow in huge drifts such as we had not seen before during the winter. Around our house the wind had swept almost a clean path. Only a half-inch or so covered it at any time, and this quickly melted as soon as even the faintest of the sun's rays struck it. The pasture across the road, flat and treeless as the top of a table, showed not one inch of bare ground; neither did the fields at the sides and back of the house. The only possible feeding-ground for the birds, therefore, was the broken circle in our yard.

There it was they came in flocks. There were, of course, the Juncos who seemed to enjoy the winter weather, and then there came the Robins. Poor birds! It was pitiful to see them run along on the snow, cocking their heads from side to side as if listening for worms, when you knew they were a foot or a foot and a half from the ground and the home of angle worms! Yet habit was so strong in them that even when they were picking up the grain and crumbs that I had thrown out, they assumed the listening attitude as they ran over the ground. When they struck the open space, however, their listening was not in vain. There were worms, many of them, drawn to the surface by the moisture from the melting snow, and the hungry Robins were quick to detect their presence and after a struggle pull them out from their hiding-places. Not just two or three Robins came around, but a dozen and more could be seen at almost any time of the day, listening for worms. The fights that ensued were many, for the Robins proved themselves very quarrelsome birds.

Once I witnessed a spirited engagement between a Robin and a Meadow-

lark. The Meadowlark won. With its long bill it quickly put Cock Robin to a disgraceful flight.

The Meadowlarks seemed uneasy near the house. Though they had oftentimes sung from a tree-top in the yard, or even from a fence-post, they had never before, to my knowledge, alighted in the yard. Now they were forced to do so in order to find food. They would fly down some distance from the wind-swept path, and then come cautiously waddling across the snow—there is no word but waddling which adequately describes their progress over the soft, unfamiliar snow. Though alarmed by the slightest movement at a window, they were hungry and they liked the grain. Therefore they ventured nearer and nearer the house, consuming large quantities of the grain in the short time they dared remain where danger seemed so imminent. They had no difficulty whatsoever in making way with the large kernels of grain they found: the Robins, on the other hand, ate grain much as we would eat hay! It was something to keep them alive, but they could neither relish it nor master the art of eating it daintily.

Sometime after the Meadowlarks had braved the perils of a close approach to the house, the Killdeer made tentative excursions into the yard. For long they circled about overhead, uttering their cry of *killdeer, killdeer*, urged by hunger to seek food on the bit of open ground, yet fearing to approach so near a human habitation. Eventually, however, a pair of them, screaming, settled on the wet ground, within a few feet of our windows. Immediately they became absorbed in their search for food. They, too, listened for sounds of life hidden in the mud, but not in the manner of the Robins. The Killdeer did not cock their heads on one side and then on the other. They listened with heads held straight in front of the body, but oftentimes they stopped to listen, balanced on one foot or with one foot slightly in advance of the other. No difficulty at all was encountered by the Killdeer in unearthing small insect life, but when worms were heard and their position located, then there was trouble. The Killdeer's slender legs, with their high joints, were never built for bracing the body, as are the stout legs of the Robin. Consequently, as soon as a bird had pulled a worm about half out of its hole, the strength would leave its legs, it would be forced to 'give' to the worm a bit, and the worm would quickly seize the opportunity to wiggle far down into the soft earth. In the two days that the Killdeer were about the house almost all the time, I saw but two worms successfully landed, though dozens of attempts were made.

A slight movement at a window always sent the Killdeer into the air with the most plaintive scream I have ever heard. "Oh, dear, dear, dear, dear, dear" they seemed to cry as they spread their wide sea-bird-like wings and circled away from the suspected danger zone to which, however, they returned in a very few minutes.

The Bluebirds, who heretofore had not left the orchard, made several

visits. These spring arrivals were not the familiar chestnut-breasted Bluebird of the East, but the Mountain Bluebird, a bird with beautifully shaded upper parts of blue, but with a breast of soft grey. Yet, watching them from a distance, one knew at once they were of the Bluebird family.

Pheasants grew friendly; Flickers were glad of a bit of grain; even the Lewis's Woodpecker discovered a crust of bread in the snow and made repeated excursions to it, always leaving in the soft snow the trail of his long, forked tail. One queer little Sparrow, marked with golden brown stripes, appeared often with the Juncos who never seemed to pay the slightest attention to us. How it came to be here, all alone, was a mystery. Another lone little bird whose acquaintance I was delighted to make was Audubon's Warbler. I saw it first intently searching the bark of a tree for food, quick, active, happy, in spite of deep snow on the ground and the raw wind that was blowing. At first I mistook it for the Myrtle Warbler, but, on closer investigation I discovered that the throat of this bird was yellow, rather than white, a marking which at once distinguished it from the Myrtle Warbler. Again I wondered how one lone little bird should be abroad on such a day.

The Finches were strangely absent. The friendly little pair who for weeks had been singing to us from the poplars and the apple trees disappeared completely. Where were they? And where are they? The warm days have returned; the snow is gone save where the deepest drifts were piled; the Killdeers keep close to their irrigated pasture; the Meadowlarks no longer venture into the yard, and four Robins are the most to be seen at any one time. Other birds have arrived. There is a Crested Flycatcher which perches on the telephone wire outside my window and wakens me with his call each morning. There are the Mourning Doves answering each other from distant trees with their sad, sweet *coo a-coo-coo-coo*. The Yellow-headed Blackbirds have joined the Redwings. The still leafless treetops have been dotted with tiny feathered balls of golden yellow—dozens of sweet-voiced Goldfinches. But the House-Finches have not returned to the nest-building over which they worked so happily before the storm. Is it possible that they fell victims to the spring-time blizzard?

A Nest-Building Parrot*

By MARY B. SHERMAN, Ogdensburg, N. Y.

IN MAY, 1920, two Parrots escaped from their cage. They soon made their way to my garden, which has been a bird sanctuary for seventy years, and throughout the summer spent most of their time in this neighborhood. They seemed to find plenty of food in nearby chicken-yards, and they also fed on the tender green shoots of the trees and delighted in apples as soon as they were formed.



NEST OF THE MONK PARRAKEET
Built in Ogdensburg, N. Y.

Of course, we tried to feed them, but for some time they were very shy. As the weather grew cooler they learned where to find food and came daily to window-sills and piazzas where it was left for them.

In July, they began building a nest. The first one was made of twigs very loosely woven, well camouflaged, as the green leaves were left on the twigs. It was shaped like a Robin's nest and placed on a small branch in a tall maple, about a half a block from my home. It seemed to be completed and I saw one of the Parrots sitting in it, when a strong wind brought it to the ground.

*A detailed description of one of the birds, still living, whose interesting history is given in this article, shows it to be the Gray-breasted or Monk Parakeet (*Myiopsitta monacha*) of southern Brazil to Uruguay, a species noteworthy for communal nest-building habits.—Ed.

In a few days they commenced a second nest which was quite different. This was round, more like a Marsh Wren's, and was built around a slender branch, $1\frac{1}{2}$ inches in diameter in its largest part, high up in a nearby elm. This nest is truly remarkable. It measures thirty-nine inches in diameter one way and thirty-three inches the other. It is firmly woven of small twigs, from which, in time, the leaves fell. The branch runs *through* the nest, and on this the birds roosted, as the bark is all worn off by their feet. In the front of the nest is a round opening about 5 inches in diameter and in this doorway both Parrots would sit billing and cooing and talking to each other in Parrot language, while we watched them from below. As cold weather drew near, we were greatly distressed fearing they would freeze in our cold northern winter, and we tried in every way to capture them with traps which the Bird Club had made. Three different nights the Mayor had the firemen go up to the nest on extension ladders but each time the birds were aroused and escaped. Everyone became interested and there was hardly an hour in the day that there was not an audience on the walk below watching the Parrots. In December I went to California leaving the birds feeding on the snow under my window. They had grown very handsome, their feathers thick and fluffy, and they had plenty of food for everyone in the neighborhood had a place where food was kept for them. When they found something they especially liked they would fly to a veranda railing or tree where the male would break off small pieces and feed them to the female. Certainly they had had the time of their lives, and I really believe that they might have lived through the winter, for the nest seemed warm, but it was so large and on such a slender branch that we feared it would fall when covered with ice and snow. Before Christmas word reached me that both birds had been trapped. They were returned to their owners, but alas during the winter one died, and in the spring the other was liberated. It was pitiful to see him in his old haunts calling for his mate. I believe he has now been captured again and I hope has a happy home. The firemen again went up into the tree, sawed off the limb which held the nest and saved it for me.

The Migration of North American Birds

SECOND SERIES

XVIII. RED-WINGED BLACKBIRDS

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

RED-WINGED BLACKBIRD

The well-known Red-winged Blackbird (*Agelaius phæniceus*) in some one of its many forms is found throughout most of North America, Mexico, and Central America, north to Quebec, Mackenzie, and British Columbia, and south to Costa Rica. Northward and eastward it is migratory, but the California races and those along the Gulf of Mexico seem to be mostly resident. The distribution of the North American subspecies is given below.

The **Florida Red-winged Blackbird** (*Agelaius phæniceus phæniceus*) is resident in the southeastern United States from southern Florida (excepting the southeastern coast and the Keys) north to the coast region of South Carolina, to southern Alabama, southern Louisiana, and southeastern Texas.

The **Bahama Red-winged Blackbird** (*Agelaius phæniceus bryanti*) is resident in southeastern Florida, the Florida Keys to Key West, and in the Bahama Islands.

The **Rio Grande Red-winged Blackbird** (*Agelaius phæniceus megapotamus*) is resident in central southern Texas, Tamaulipas, and northern Vera Cruz, Mexico.

The **Eastern Red-winged Blackbird** (*Agelaius phæniceus predatorius*) breeds in the northeastern United States and southeastern Canada, north to Nova Scotia, Quebec, and Ontario; west to central Ontario, central Wisconsin, Iowa, Missouri, eastern Oklahoma, and northeastern Texas; south to northern Louisiana, northern Alabama, and North Carolina; and east to the Atlantic coast from North Carolina to Nova Scotia. It winters regularly north to southern Virginia and Arkansas, occasionally to southern New York and northern Illinois; and south to the coast of the Gulf of Mexico from Florida to Texas.

The **Northern Red-winged Blackbird** (*Agelaius phæniceus arctolegus*) breeds in central Canada and the central northern United States, north to northern Manitoba (central Keewatin) and southern Mackenzie; west to western Mackenzie, Alberta, and southeastern British Columbia; south to Montana, North Dakota, Minnesota, and northern Michigan; and east to northern Michigan and eastern Manitoba. In migration it wanders east to Ohio and Connecticut; and winters south to Texas, Louisiana, and Alabama.

The **Thick-billed Red-winged Blackbird** (*Agelaius phæniceus fortis*) breeds in the central United States, north to Wyoming; west to Wyoming and central Colorado; south to northwestern Texas; and east to central Nebraska. It occurs, at least in migration, east to southwestern Minnesota, and winters south to northern New Mexico, southern Texas, and Louisiana.

The **Nevada Red-winged Blackbird** (*Agelaius phæniceus nevadensis*) breeds

in the Great Basin region of the United States, north to southeastern Washington; west to Oregon, northeastern California, western Nevada, and central eastern California; south to northern Arizona and southeastern New Mexico; and east to central western Texas, New Mexico, southwestern Colorado, southwestern Wyoming, and western Idaho. It winters south to Chihuahua, Mexico.

The **Northwestern Red-winged Blackbird** (*Agelaius phaniceus caurinus*) breeds in the Pacific coast region, from southwestern British Columbia, including Vancouver Island, to western Washington. It winters south to northwestern California.

The **Kern Red-winged Blackbird** (*Agelaius phaniceus aciculatus*) is resident in Kern County, California, and apparently is a very local race.

The **San Diego Red-winged Blackbird** (*Agelaius phaniceus neutralis*) breeds in southwestern California and northern Lower California, wintering south to southern Lower California.

The **Sonora Red-winged Blackbird** (*Agelaius phaniceus sonoriensis*) breeds in northwestern Mexico and in the southwestern United States, north to southwestern New Mexico and central Arizona, west to eastern California, western Sonora, and western Sinaloa, Mexico; south to Tepic, Mexico; and east to Tepic, eastern Sonora, and southwestern New Mexico.

In the following tables of migration data the localities indicated by (*) pertain to the Northern Red-winged Blackbird; those by (†) to the Thick-billed Red-winged Blackbird; those by (‡) to the Nevada Red-winged Blackbird; and all the others to the Eastern Red-winged Blackbird.

SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Weaverville, N. C.....	4	March 1	February 10, 1894
New Market, Va.....	28	March 4	February 19, 1909
White Sulphur Springs, W. Va.....	6	March 2	February 17, 1897
French Creek, W. Va.....	3	March 3	February 25, 1890
Washington, D. C.....	21	March 2	Rare, winter
Philadelphia, Pa.....	19	March 4	February 10, 1884
Renovo, Pa.....	23	March 18	March 2, 1887
Beaver, Pa.....	15	March 9	February 14, 1891
Morristown, N. J.....	19	March 10	January 23, 1910
New York, N. Y.....	20	March 15	February 22, 1884
Shelter Island, N. Y.....	15	March 3	Rare, winter
Ithaca, N. Y.....	10	March 12	February 1, 1902
Buffalo, N. Y.....	9	March 23	March 14, 1913
Hartford, Conn.....	25	March 20	March 5, 1910
Jewett City, Conn.....	30	March 11	February 25, 1909
Providence, R. I.....	22	March 14	February 22, 1906
Springfield, Mass.....	7	March 19	March 9, 1898
Harvard, Mass.....	7	March 11	February 22, 1909

SPRING MIGRATION, continued

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Boston, Mass.	27	March 15	February 17, 1883
Bennington, Vt.	13	March 22	February 3, 1908
St. Johnsbury, Vt.	15	March 29	March 19, 1913
Tilton, N. H.	6	March 22	March 7, 1906
Portland, Maine.	9	March 29	March 21, 1904
Phillips, Maine.	10	April 7	March 28, 1905
Orono, Maine.	8	April 9	March 25, 1889
Montreal, Quebec.	12	April 11	March 22, 1897
Quebec, Quebec.	3	April 29	April 19, 1895
Scotch Lake, N. B.	9	April 21	April 8, 1916
Alberton, P. E. I.	9	April 9	March 30, 1898
Athens, Tenn.	8	February 26	February 1, 1903
St. Louis, Mo.	10	February 28	January 25, 1884
Concordia, Mo.	9	February 24	January 30, 1911
Chicago, Ill.	31	March 15	Rare, winter
Bicknell, Ind.	7	February 28	Rare, winter
Waterloo, Ind.	19	March 1	February 14, 1891
Wauseon, Ohio.	15	March 5	February 22, 1884
Youngstown, Ohio.	12	March 3	February 20, 1916
Oberlin, Ohio.	24	March 9	February 21, 1915
Vicksburg, Mich.	13	March 11	March 1, 1906
Detroit, Mich.	10	March 16	February 21, 1915
London, Ontario.	12	March 17	February 18, 1913
Ottawa, Ontario.	30	April 2	March 15, 1902
Keokuk, Iowa.	13	March 1	Rare, winter
Sioux City, Iowa.	10	March 12	March 4, 1905
Racine, Wis.	15	March 12	March 1, 1882
Madison, Wis.	19	March 14	March 7, 1904
Lanesboro, Minn.	10	March 28	March 15, 1889
*Minneapolis, Minn.	22	March 28	February 26, 1880
*St. Vincent, Minn.	2	April 14	April 14, 1897
Onaga, Kans.	27	March 6	February 15, 1902
Red Cloud, Neb.	9	March 10	February 28, 1909
†Rapid City, S. Dak.	11	March 25	March 14, 1916
Vermilion, S. Dak.	5	March 17	March 4, 1911
*Argusville, N. Dak.	12	March 13	March 7, 1894
*Aweme, Manitoba.	20	April 10	March 23, 1910
*Reaburn, Manitoba.	8	April 19	April 9, 1900
*Qu'Appelle, Sask.	16	April 21	April 3, 1910
*Ft. Simpson, Mackenzie.	3	May 13	April 28, 1861
*Yellowstone Park, Wyo.	2	April 7	March 29, 1914
†Rupert, Idaho.	3	February 27	February 16, 1913
*Rathdrum, Idaho.	9	March 2	February 12, 1900
*Terry, Mont.	8	May 1	April 11, 1906
*Missoula, Mont.	2	March 2	February 28, 1915
*Flagstaff, Alberta.	10	April 19	April 11, 1912
*Banff, Alberta.	4	May 2	April 11, 1906
*Mirror Lake, B. C.	3	March 24	March 14, 1911

FALL MIGRATION

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
*Aweme, Manitoba.....	14	October 23	November 6, 1902
*Qu'Appelle, Sask.....			December 1, 1913
*Yellowstone Park, Wyo.....			October 13, 1915
Madison, Wis.....	10	October 31	November 23, 1913
Lanesboro, Minn.....	10	November 7	November 23, 1887
*Minneapolis, Minn.....	4	November 7	November 19, 1902
*St. Vincent, Minn.....	3	October 31	November 4, 1895
Keokuk, Iowa.....	11	November 19	Rare, winter
Concordia, Mo.....	7	November 8	November 20, 1914
Onaga, Kans.....	15	November 6	November 28, 1900
London, Ontario.....	4	October 27	November 4, 1902
Ottawa, Ontario.....	20	October 18	November 7, 1905
Vicksburg, Mich.....	11	November 4	November 26, 1902
Detroit, Mich.....	9	October 31	December 13, 1908
Chicago, Ill.....	11	November 2	Rare, winter
Bicknell, Ind.....	7	November 19	Rare, winter
Waterloo, Ind.....	8	November 5	November 21, 1905
Wauseon, Ohio.....	11	November 6	November 15, 1891
Youngstown, Ohio.....	8	November 13	November 20, 1915
Oberlin, Ohio.....	11	October 20	November 19, 1906
Athens, Tenn.....	6	November 3	November 25, 1908
Alborton, P. E. I.....	5	September 27	October 1, 1895
Montreal, Quebec.....	9	October 23	November 14, 1896
Boston, Mass.....	10	November 8	December 25, 1903
Harvard, Mass.....	8	October 20	November 26, 1914
Providence, R. I.....	6	October 15	October 28, 1906
New York, N. Y.....	2	November 22	December 7, 1901
Morristown, N. J.....	13	October 22	November 13, 1916
Beaver, Pa.....	4	November 17	November 26, 1890
Renovo, Pa.....	16	October 22	November 14, 1910
Philadelphia, Pa.....	8	November 1	November 28, 1915
Washington, D. C.....	4	November 20	Rare, winter
French Creek, W. Va.....	3	November 7	November 13, 1890

BICOLORED BLACKBIRD

The Bicolored Blackbird (*Agelaius gubernator*) has only a single subspecies in the United States, but at least two others in Mexico.

The Bicolored Blackbird of the United States (*Agelaius gubernator californicus*) is a permanent resident in central California north to Tehama County and south to King County. It is also of accidental occurrence at Casa Grande in central southern Arizona.

TRICOLORED BLACKBIRD

The Tricolored Blackbird (*Agelaius tricolor*) is a permanent resident, though local, in most of California excepting the southeastern, northwestern, and northeastern sections, and it ranges also north to central southern Oregon.

Notes on the Plumage of North American Birds

SIXTY-THIRD PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

Red-winged Blackbird (*Agelaius phoeniceus*; Figs. 1-3). In accordance with the law among birds that when the male is brighter than the female, the young of both sexes more nearly resemble their mother than they do their father, there is no essential sexual difference in the plumage of nestling Red-winged Blackbirds. Both the juvenal male and the juvenal female are brownish black, margined with buffy or rusty above and broadly streaked with black and buff below. This plumage is worn for more than a month after the bird leaves the nest, and by a complete molt is succeeded by the first winter dress. The male (Fig. 2) for the first time acquires the red epaulet; it is, however, not so bright as in the fully adult bird, and is mottled with black. The rest of the plumage is black, but is widely margined or tipped with buff or rusty above, and by buff or whitish below. As the season advances most of these margins and tips wear, or fall off, and by May or June the bird is jet-black with but few traces of the fringes which so distinguish its winter costume. Indeed, so far as the body plumage is concerned, the bird born the preceding year is much like one that is two or more years old, but its epaulet still lacks the brilliancy of the adult and possesses the black mottlings of the first winter plumage. Mature plumage is therefore not acquired until the first postnuptial, that is, second fall molt. The bird is then in second winter plumage, which resembles that of the first winter (Fig. 2) but has the rich, red, unspotted shoulder-patch of the adult. Again by wear the rusty tips gradually disappear and by the following May (the second of the bird's life) we have the bright black, scarlet, and buff-shouldered bird shown in Figure 1 of the frontispiece.

The young female in the postjuvenal or first fall molt passes from one streaked plumage to another, and there is, consequently, much less difference between a young and an old female than between a young and an old male. Fully mature females (Fig. 3) have the 'shoulder' tinged with red, and the throat with reddish orange instead of yellowish, and after these marks are acquired they undergo but little seasonal change in color.

The Red-wing is found from Canada to Mexico and the West Indies, from the Atlantic to the Pacific. As might be expected, it exhibits considerable variation in this extended territory, its general size, the size and shape of the bill, and the color of the female being the characters most affected. These local or geographical variations have in a number of instances been described as races or subspecies. Doubtless no two ornithologists would agree on the number of these subspecies which are deserving of recognition by name. The Committee on Classification of the American Ornithologists' Union has

made no recent ruling in this field, and we consequently present Dr. Oberholser's views on the preceding pages as those of an expert who has devoted much attention to this group.

During the breeding season, when only one subspecies will be found at a given place, the various races may be known by the regions which at that time they occupy. But while migrating, or in the winter, when several races may be associated, positive field identification is not to be expected.

The **Bicolor Blackbird** (*Agelaius gubernator californicus*; Fig. 4) resembles the Red-wing but the male has the red shoulder-patch bordered with black instead of buff, and the female is blacker with rusty margins.

The **Tricolor Blackbird** (*Agelaius tricolor*; Figs. 5, 6) has the shoulder-patch of the male bordered with white instead of buff or black, and the female is less streaked than in the Red-wing.



Notes from Field and Study

Migrants in New York City

On May 15, 1921, Madison Square, a small park in the very heart of Manhattan, was the scene of an astonishing migratory bird exhibit. Bewildered in the thick weather of the preceding night, large numbers of small birds had dropped into this haven of refuge and through the kindness of Mr. George Gladden, of the New York Linnæan Society, who telephoned me of this remarkable event, I was able to make a rough census on two successive days, and to investigate the cause of such an unusual happening.

Arriving about 1 P.M., I was surprised to find the birds swarming over the lawns, but relatively few of them up in the trees. It was a novel sight to watch Redstarts and a Chestnut-sided Warbler flitting about on the close-cropped sod, and the birds seemed so ravenously hungry that even Maryland Yellowthroats were to be seen pecking at the pieces of bread thrown in by passers-by. Grasshopper Sparrows appeared more at home, as they crouched low in the short grass, where they probably found more natural food.

The total number of birds, on the 15th, I estimated at about 525, exclusive of House Sparrows. Ovenbirds were decidedly in the majority, scattered everywhere through the park, while the next most abundant birds, White-throated Sparrows, were gathered in more or less of a flock in the center of the Square. Twenty-three species of native birds were seen alive, and one more, the Magnolia Warbler, was represented among the birds picked up dead.

By the following day more than three-fourths of the birds had left. Among those remaining, of course, were some that had suffered injuries, but others seemed quite unhurt. Of the larger and stronger species, such as the Catbird, Towhee, and White-throated Sparrow, even a smaller proportion was left.

The species and the estimated numbers of individuals present on these first two days

are as follows, but Ovenbirds and a few others remained for many days thereafter.

	May	
	15	16
Lincoln's Sparrow.....	1	0
Chipping Sparrow.....	8	2
Field Sparrow.....	4	1
White-throated Sparrow.....	100	15
White-crowned Sparrow.....	2	0
Swamp Sparrow.....	4	0
Grasshopper Sparrow.....	8	1
Towhee.....	50	8
Northern Water-Thrush.....	2	2
Ovenbird.....	200	60
Maryland Yellow-throat.....	80	30
Yellow-breasted Chat.....	1	0
Redstart.....	4	2
Chestnut-sided Warbler.....	1	1
Black-throated Blue Warbler.....	2	0
Myrtle Warbler.....	1	0
Parula Warbler.....	2	1
Black-and-white Warbler.....	7	1
House Wren.....	3	0
Brown Thrasher.....	3	0
Catbird.....	35	4
Wilson's Thrush.....	3	0
Gray-cheeked Thrush.....	2	0

Many birds of the species enumerated above were found dead in the vicinity of Madison Square, and the cause of the disaster is not far to seek. The night had been very foggy, and it was against the tower of the Metropolitan Life Building, to the east of the Square, that the birds had hurled themselves. The brilliant electric lights at its apex, and the illuminated clock-dials lower down doubtless played a part. So many of the dead birds had been carried off before my arrival that it was impossible to estimate accurately the number that had succumbed. The superintendent of the Metropolitan Life Building tells me that about one hundred were found on the building, but two or three times that number probably fell in the park and on nearby streets. We noted that few Towhees or Sparrows had been killed; most of the casualties were among the weaker

Warblers.—JAMES P. CHAPIN, *American Museum of Natural History, New York City.*

A Strange Migration

This locality is in eastern Iowa and about 65 miles north of the Missouri line. The weather during the early part of January, 1922, had been what one might call 'fine winter weather.' The temperature had been oscillating between zero and 32 degrees above. Up to the 18th there had been very little snow in January, though earlier in December we had both snow and lower temperature. From the 12th to the 18th of January there had been no snow at all and the ground was bare. On the 18th, at 3 P.M., a very fine snow began to fall. By 9 P.M., the ground was covered by about 2 inches of very fine, light snow. Some of the snow adhered to every limb, branch, and twig of all the trees, bushes, and plants, converting the landscape into fairyland. There was not a breath of air moving. The night was perfectly still, the temperature was 18° above, and the fine snowflakes continued to descend lazily to earth.

At 9 P.M. small voices, as by enchantment, began to be heard at a distance toward the northwest. Presently, they were overhead and in every direction. Judging from the volume and quality of the sound, the travelers must have been a large concourse of small birds. They were moving in a southeasterly direction. For one and one-half hours I heard their voices, many of them. I could hear them as they were approaching, could hear them overhead and for a considerable distance after they were past. The flight of birds was continuous though many more were to be heard at some times than at others. Many thousands of birds must have passed this locality during that time. All the birds seemed to belong to one species. Their note is not unlike that of the Bluebird but higher in pitch and varied occasionally by a little trill. I have heard the same voices here before but always in the air, at night, and during migration time in spring and fall, but never in the middle of winter!

At 10.30 P.M. the wind began to sigh and moan in the tree-tops and the flight of the

birds ceased. Gradually the northwest wind became more boisterous and the temperature fell to 5° below zero during the night. Next day was fair and cold.

Now several questions arise at once in regard to this peculiar and interesting phenomenon. What species of birds were these? Where did they come from? Did they intuitively know or feel the approach of the cold wave or did the storm stir them up and did they gain an hour and a half on the wind by their more rapid flight. If, as would seem, they are migratory birds, how can we account for the fact that they did not move South in December when the temperature went to 7 degrees below zero and the ground was also covered with snow.—E. D. NAUMAN, *Sigourney, Iowa.*

A Removable Floor for Bird-Houses

In the past years that I have used home-made bird houses, I have found that the strongest argument in their disfavor is the difficulty experienced in cleaning them out. A number of house-nesting birds, including the House Wren, which is, perhaps, the most desirable of them all, will rarely occupy a house a second time if the owner fails to clean it out; but cleaning the house out often means a great deal of labor. Usually, a tree must be climbed, the house torn from it, and after the ground is reached, it is often necessary to tear a side from the house to get at the contents. Such means will usually permanently disfigure the bird-house and the person has the choice of building a new one or replacing the old in its battered condition.

In an effort to remedy this fault, a number of good ideas have been put into practice, and while most of them will serve their purpose well, they frequently do not combine simplicity in construction with strength, and the results are disappointing. I have used a good many types of bird-houses and have tried the various schemes for cleaning them with more or less success, but I have found that they do not quite answer the requirements, and I was therefore prompted to devise a removable floor, which is a little different from any plan I have yet seen, and

have successfully used it on my more recent houses.

The removable floor can be used on any single-story bird-house regardless of the number of rooms, but it is more practical for the one-room type. The house is constructed in the same manner as any bird-house, save that no floor is built into it, and about one-half inch from the bottom four holes, two on each side and directly opposite each other, are bored; these are to receive light wire which is run through them and cut off, leaving an inch or two protruding on each

save much unnecessary trouble.—FRED J. PIERCE, *Winthrop, Iowa.*

The Herring Gulls

One afternoon in April, when the sunshine was warm and the great out-of-doors was inviting, a trip was made to the lake shore to photograph the Gulls. They were there as usual; some were sitting on the ground like sentinels; others in smaller groups were overhauling the refuse of the city's waste; others again, were flying and sending out



HERRING GULLS

Photographed by Thos. A. Taper

side of the house. The floor, which is made to fit snugly, but not tightly inside the bottom, rests on these two wires, and when they are bent over on the outside, the floor is held strongly in place. Two cleats, nailed above the floor on the inside, will hold it in place from above, but this is hardly necessary.

It will be readily seen, that, by simply bending the wires straight and pulling them out of their holes, the floor will drop out and with it the contents of the box. This can be easily accomplished without the trouble of removing the house from the tree, and as a pair of pliers is the only tool required, I believe that the adoption of this plan would

their cries through the clear cool air; the remaining ones were farther away, near a break in the ice in the lake.

I first attempted to get a picture by approaching quietly, but this resulted only in a general rise of assembly and an alighting some feet distant.

The next afternoon, the same place was visited, and the Gulls were there as usual. The camera was set near a brush-fire, which was dying out. Some pieces of bread were thrown a few feet away from it, and the Gulls soon came from all directions. The first arrivals settled down near the smoldering embers of a discarded Christmas tree; others

dropped very cautiously over the pieces of bread; and those that were on the other side of the lake started on their journey to a bountiful repast. Thus the birds got their food, and I got my pictures.—THOMAS A. TAPER, *Negaunee, Mich.*

A Winter Sapsucker

Since January 3, 1922, the Yellow-bellied Sapsucker, shown in the accompanying photograph, has been an almost daily visitor

pool. Suddenly a bass jumped from the water and swallowed the Hummingbird!"—MARY E. LOCKWOOD, *Lakewood, N. J.*

A Winter Phoebe at Bennington, Vt.

On February 1, 1922, I was sitting on a box by our barn, when I heard the familiar note of the Phoebe, and, upon looking upward, saw him dash from the roof and catch a fly which had been enticed to come out of his winter hiding-place by the warm sun. Then the



A WINTER SAPSUCKER
Photographed by Florence M. Fraser

at our window bird-table, where he partakes of hemp seed. He seems to be an object of curiosity to our other bird guests who are just getting up enough courage to eat behind his back.—FLORENCE M. FRASER, *Morristown, N. J.*, Feb. 19, 1922.

Hummingbird and Bass

A letter from a member of my family, from Santa Barbara, Calif., dated November 16, 1921, contains a sentence which seems worthy of record in BIRD-LORE. It reads: "We were seated by the lotus-pool when a Hummingbird flew and hovered over the

Phoebe sat on a twig about twenty feet away from me and vigorously switched his tail. In a few minutes he flew away and I did not see him any more. I was very much surprised at his early appearance, as Phœbes do not usually arrive in this locality before March. There is no question of his identity, as I saw him very plainly. The thermometer stood at 48 degrees at the time.—(MISS) CAROL JONES, *Bennington, Vt.*

The Starling in Tennessee

It may be of interest to know that the Starling has reached our vicinity. I ob-

served the first seen here on December 12, near Bluff City, Tenn. They were in company with Meadowlarks, feeding in the open fields.—BRUCE P. TYLER, *Johnson City, Tenn.*, Dec. 13, 1921.

The Starling in Louisiana

I was rather surprised recently by coming upon a flock of Starlings (*Sturnus vulgaris*) at a point on the Mississippi River about twenty-five miles above Baton Rouge.

As proof of my competence to identify the European Starling I might state that I have observed and studied them at West Englewood, N. J., where there are numbers of them. Furthermore, only four or five months have elapsed since I was at home (Morris Plains, N. J.), where the Starlings are quite a nuisance. I am certain that I have not mistaken any other bird for the Starling, for I am very well acquainted with all the members of the family Icteridæ, with which this bird might be confused. During the several years that I have spent along the Mississippi River in Mississippi, Louisiana, and Arkansas, I had not noted the bird before, and, in fact, could be positive in stating that it has not been in my locality, for the nature of my work (civil engineering) gives me excellent opportunities to observe. The particular location where this flock stays (I saw it regularly all the time I was in the vicinity) is at Grand Bay (post office, Hermitage, La., railway station Glynn, La.) on the Mississippi River; and still more specifically I might state that it remained in a piece of pastureland that lay between the levee and the bank of the river.

A theory that presents itself to me and which will account for the presence of the birds is the following: I have noted before and in localities where there are numbers of Starlings, that they sometimes associate rather closely with Red-winged Blackbirds. In view of this I think it possible that several Starlings might become separated from their own kind, due to the indiscriminate associating that I mention, and in their wanderings stray outside the usual geographical range of the Starlings, and then, in accordance with their flocking instinct, remain with the Blackbirds and follow them on down South.

The birds I noted had all of the usual characteristics of Starlings such as the peculiar soldier-like evolutions which they perform when on the wing, the whistled notes (including the note which you consider as resembling that of the Wood Pewee—which it does), and it is also fairly hard to approach.—WALTER C. CAREY, *Baton Rouge, La.*, Dec. 16, 1921.

A Michigan Winter Red-wing

The Red-winged Blackbird is common but not an abundant bird in this vicinity. It nests in June and July and leaves its nesting-grounds about the middle of August. After that it is found in flocks, which leave for the South in September.

On November 21, 1921, a male bird in winter plumage came into my feeding-station and has been around daily since. He seems to be very much at home and acts as though he intended to stay for the winter. As Sault Ste. Marie is in latitude 46° 30' north, the latitude of northern Maine and almost the latitude of Quebec, Canada, this may be a northern record for the wintering of a Red-wing.—M. J. MAGEE, *Sault Ste. Marie, Mich.*, Dec. 9, 1921.

The Evening Grosbeak in Michigan

In the various bird books I have looked over, the Evening Grosbeak is given as a western bird, which occurs irregularly east of the Mississippi River in winter. This I do not believe is strictly correct, at least for the upper peninsula of Michigan, and for the following reasons:

The Evening Grosbeak was made known from Sault Ste. Marie, Mich., by Schoolcraft in 1823. That shows that these birds were in the upper peninsula of Michigan at that early date.

I came to Sault Ste. Marie in 1888 and saw my first Evening Grosbeak in the winter of 1889-90. I found the bird was quite well known to a number of people and was seen here frequently in winter. Up to the winter of 1915-16, never over two consecutive winters went by without my seeing some of these birds.

The winter of 1915-16 I started putting

out sunflower seed, and not a winter since then has gone by without some Evening Grosbeaks being at my feeding-station. They come from the middle of October to early November, except one year, when they were here only in February, and stayed until the end of May, the flock varying from thirty to seventy.

It seems to me the above indicates that they are more than an 'irregular winter visitor.'

As Sault Ste. Marie has the honor of being the location from which the Evening Grosbeak was first made known to science, it can now claim to be one of the first places to report the presence of these birds east of the Mississippi River in summer and undoubtedly nesting.

Dr. K. Christofferson, my partner in bird-work, visited Munising Junction, about 115 miles west of Sault Ste. Marie, on May 23, 1920, and found Evening Grosbeaks there. He again visited the Junction September 6 and 7, October 3, 24, and 25, 1920, and found the birds present. The station agent told him they had been there all summer. The Doctor arranged with the agent to keep track of the birds. June 1, 1921, he again saw the birds at the Junction and the agent reported they had been there all winter. When he visited the Junction, on October 28, 1921, the Grosbeaks were there as before and the agent reported they had been around all summer.

In June, 1921, we heard that a flock of Evening Grosbeaks was at Hulbert, about forty miles west of Sault Ste. Marie. July 17, we spent an hour and a half at Hulbert, between trains. We did not see any of the Grosbeaks but several people reported to us that they had been feeding along the railroad at the station that morning, had been there all summer and the previous winter. Up to the middle of August the birds were reported still there.

August 24, Evening Grosbeaks came to my feeding-station and have been here every day since then, the flock numbering about thirty.

Heretofore (the Grosbeaks coming in from the middle of October to early in November), I have found nothing but full-plumaged

males and females. This year there were a number of young, two very immature, hardly able to fly and still having some pin-feathers. One young male showed only the black and white on the wings and the yellow forehead and stripe over eye of the male, the remainder of the plumage being as in the female. Three young males showed very little of the dusky olive above, and the throat and breast were uniformly a light bright yellow which, in a perfect light, showed a few faint vertical dusky streaks.

The females varied from birds showing practically no dark lines at the sides of throat to the usual dark lines of the adult female. Four of the birds showing little, if any, dark lines at the sides of throat, had most of the usual white spots on the wings, but only the lower third to half of the primaries black, with no black whatever on the secondaries.

All the birds now seem to be in adult plumage, although some males show more dusky olive above and below than others, and the females vary almost individually in the size and shape of their white wing-markings.

I examined practically all the birds while they were feeding from a tray at my dining-room window, with only the glass between. If these birds follow the usual custom they will be here until the last of May. Late in the winter or early spring I hope to place bands on them all.—M. J. MAGEE, *Sault Ste. Marie, Mich.*, Dec. 9, 1921.

Redpoll in Georgia

On yesterday, February 5, 1922, I added the Redpoll (*Acanthis linaria linaria*) to my list of Georgia birds. There was a small flock of these birds in my back yard on the outskirts of the city, and I had the opportunity of observing two of them at close range. I presume that the extreme cold weather in the north for the last few weeks drove them this far south.—EARLE R. GREENE, 108 *Orme Circle, Atlanta, Ga.*

An Ontario Mockingbird

The most interesting ornithological occurrence observed by bird students of this region in many years was a recent visit from

a Mockingbird. It was first seen on the morning of October 20, 1921, and stayed near our house all day. Although it was not particularly tame, it came close to windows, through which it was often watched for long periods of time, with binoculars, at less than twenty feet. Thus, though none of those who saw it had had personal experience with the Mocker before, it was possible to make an absolutely positive identification.

Many other people saw it and were able to confirm the identification. Seemingly it had been attracted to our ground by the pears which had fallen from a tree in the garden, for it apparently ate little else.

It was back again on the 22d, and 23d and then was not seen again till November 12, when the temperature was below freezing, but the bird seemed in high spirits. It made its last appearance on November 20.

Unfortunately, during the entire period it was here it was quiet and did not sing.—M. G. GOULD, *Bowmanville, Ont.*

A Striking Example of a Bird's Power of Accommodation to its Surroundings and Consequent Modification of Habits

One hundred years ago the Wood Thrush was considered a shy woodland bird. Fifty years ago Dr. J. A. Allen referred to several instances "where the Wood Thrush did not show itself to be such a recluse as many describe it." Twenty-five years ago the species had become a common denizen of our parks and suburban gardens, often making its home within a few yards of occupied houses. At that time a pair had its nest for several years in an European maple (*Acer platanoides*) at the entrance to the arboretum in Shaw's Garden, St. Louis, Mo., where scores of people passed under it every day. But now, in the summer of 1921, a pair built its nest in the interior of the new conservatory in Shaw's Garden and reared three young ones undisturbed by the thousands who visited the conservatory and passed within a few feet under the nest. This is fixed twelve feet from the ground in the triple fork of a Polynesian candleberry tree (*Aleutites triloba*), in the section of the conservatory called "Economic House," which harbors

an interesting collection of exotic plants of economic value, such as tea, coffee, cocoa, guava, mango, pepper, and others yielding food, drugs, fiber, perfume, spice, or valuable wood. A bearing coffee tree is one of the neighbors of the tree that holds the nest; others are a loquat or Japanese plum tree (*Eriobotrya japonica*) and the golden apple of Jamaica (*Spondias lutea*). Access at all times was obtained by the birds through ventilators kept open in summer.—O. WIDMANN.

A One-legged Cardinal

Last summer a Cardinal and his mate built a nest just outside one of our dining-room windows. The mother laid five eggs but only four hatched. One afternoon while I was watching them, the father flew up with his mouth full of food. The female promptly opened her mouth, and I was surprised to see him give her part of the food. He gave the remainder to the young.

I watched them very closely after this occurrence and finally discovered that the mother had but one leg. I have never before heard of the male having to care for his mate and the young, too.

After I learned of the mother's plight, I put out crumbs so that the male would not have to search so far for food, and he promptly acknowledged my kindness by using the crumbs.

In placing the crumbs, I unintentionally moved a small branch that the birds had been using to alight upon when entering their nest. This seemed to utterly confuse them, for when they returned it seemed as if they would never be able to find their nest. The branch was replaced and the birds then found their home without any trouble. I have heard that the moving of a nesting-box, on the branch on which a nest was built, was confusing to the bird tenants, but did not know that the mere moving of a little branch would so affect them.

The birds finally took flight, and I have seen them several times since. About three days after the flight of the young, the Cardinals started another nest, but only two young ones flew from the second nest.—M. H. HERBEL, *Citronelle, Ala.*

THE SEASON

XXX. December 15, 1921 to February 15, 1922

BOSTON REGION.—The winter has thus far been mild in the main, and, in the country immediately about Boston, comparatively open, although to the north of us there has been an abundant snowfall and now, on the last day of the present period, snow is falling to a depth of eight inches.

The promise of a visitation of many of the irregular winter birds was not fulfilled; a few Grosbeaks have been here, both the Evening and the Pine, but only in scattered and roving flocks, and the Redpolls when seen at all have been in very small numbers. Northern Shrikes, to be sure, have remained well represented; Golden-crowned Kinglets, usually rare after January 1, have been present all winter; and Brown Creepers, Juncos, and Tree Sparrows are not uncommon, but with these exceptions no land-birds, excepting the permanent resident species, have been seen. That even these birds are to be found only in small numbers is well instanced by the Christmas census from Wilton, N. H., in which Mr. George G. Blanchard, an observer of ample experience, records but a single native species seen during a three hours' walk.

The violent storms which have swept past us over the North Atlantic this winter have apparently driven landward many of the winter sea-birds. In his 'Items of Interest' X., February 1, Mr. E. H. Forbush reports the record of a Puffin found in a garage at Duxbury Bay, a Brünnich's Murre "at a pond near Boston, and another . . . walking about in a hen-yard on Cape Cod." I am indebted to Mr. Charles B. Floyd for information of a noteworthy and unusual distribution of sea-birds. He reports Dovekies "positively common," several hundred being in sight at one time off shore. The Purple Sandpiper, a bird which in winter frequents outlying ledges and the rocky shores of our small islands, Mr. Floyd has noted "a number of times" visiting the mainland—a rare occurrence. He has seen Brünnich's Murres, Black Guillemots, and Razor-billed Auks frequently, and names

three localities (the most central, the Fish Pier, Boston) where Iceland Gulls may be seen "almost any day."

At this season of the year, when the Starlings are gathered into flocks, we can form a better idea of the number of these birds inhabiting a region than during the summer when they are scattered over the country. Here, in the rural districts, attracted by the great truck-loads of garbage brought out from Boston, the birds collect at extensive piggeries. In one such midwinter gathering we estimated that 2000 to 3000 birds were feeding upon garbage which had been spread out for fertilizer, and less than three miles away there was another flock nearly as large. These estimates give some idea of the number of Starlings with which the hole-nesting birds of this region have to compete.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—There was some cold weather, some snow, from New Year's to mid-February, but in the main the winter was an open one. It was remarkable in most sections near New York for the scarcity of passerine birds. A Snowy Owl was reported again (see Christmas Census) at Long Beach, L. I. (Bicknell), and another on several occasions on the marshes at Elizabeth, N. J. (C. A. Urner). A Razor-billed Auk which had come ashore, oil-marked and disabled, at Long Beach was secured by E. P. Bicknell and sent to the American Museum of Natural History. A single Evening Grosbeak was reported at Garden City, L. I., by Roger C. Whitman, December 29. As an excellent view of the bird was obtained and identification corroborated by examination of a mounted specimen, there seems little chance of error here. There was certainly no general invasion of irregular northern species during midwinter.

Presence of stray Grackles at the end of January proves that this bird wintered in small numbers. One is reported in Central Park, New York City, by Tertius Van Dyke, January 26. W. F. Hendrickson writes from

Jamaica, L. I.: "On January 29, during the height of the blizzard, a Purple Grackle appeared in my garden. When I first saw him (it was a male) he was perched on the rounded top of a clothes-post, trying to balance against the gale of wind and snow, but they were too much for him and he flew into a big rose bush, where he, with a couple of dozen English Sparrows, had a garage wall to shelter them from the storm. I hoped he would stay there to be fed, but something frightened him and he flew away into the storm. He looked thin and tired, as though he had been having a hard time of it lately. This is the first time I have ever seen this species on Long Island in the middle of winter.

"Another interesting item is that a male (he sings) Mockingbird has been wintering in the barren, bleak district south of Queens Boulevard, near the Packard automobile building. He has been seen a number of times, sometimes sings, and seems to be in good shape."

The Catbird in the Botanical Gardens, December 18, apparently met with an untimely end, for a dozen or so Catbird feathers were found, December 25, scattered a few feet away, and two tail-feathers sent in by F. F. Houghton.

In late January and early February, Shrikes were apparently less common, for the writer saw none, and there seemed to be a slight influx of Tree Sparrows, doubtless from the north. As, with the exception of two stragglers on January 2, the writer has seen no Meadowlarks since December on west-central Long Island; their song has not welcomed the mounting February sun at Garden City, as in years gone by. Reference to the corresponding report last year will show that this species returned in mid-January. Perhaps an exceptionally heavy snow-storm which followed in late February last year has discouraged them from repeating an early return.

On the marshes at Elizabeth, N. J., Urner reports an apparent spring movement in Meadowlarks and Ducks the first half of February. With the increased numbers of Black Ducks he observed individuals of the Mallard and Pintail.

A 'winter' Song Sparrow, banded at Upper Montclair, N. J., by R. H. Howland (No. 44699, see October-December report), returned to his traps February 4 this year after being last taken December 23. In 1921 the same individual likewise returned February 4 after having last been taken December 5 preceding. Such midwinter absence of this bird from his traps which might easily have been due to chance one year, becomes significant when occurring a second time. On January 17, B. S. Bowdish trapped three Tree Sparrows at Demarest, N. J., one of which he had banded (No. 49269) nearly or quite a mile away two years previous, February 23, 1920.—J. T. NICHOLS, *New York City*.

PHILADELPHIA REGION.—The period under consideration has been marked with a number of quite cold days and much stormy weather. The blizzard of January 28 and 29 resulted in about eight inches of snow which drifted in places to the depth of six feet or more. A few days later the ground was for the most part bare, the snow having been quickly melted by a sudden rise in temperature accompanied by a warm rain. It seems therefore quite probable that comparatively little damage was done to bird-life through lack of food. However, numbers of Black Ducks were reported to have been picked up along the Jersey coast in an exhausted and helpless condition immediately following the storm.

Probably the most interesting record of the winter is that of a Golden Eagle which was shot by a deer hunter near Browns Mills, N. J., about mid-December. The bird was brought into Mt. Holly, N. J., and identified by Mr. Nelson D. W. Pumyea to whom credit is due for the record. The gunner claimed that the Eagle was about to attack him and he had to shoot in self-defense. That he made up the story in self-defense would no doubt be much nearer the truth.

The Cardinal population this winter appears somewhat above normal. On January 15 a flock of 20 of these birds and 2 Purple Finches were seen feeding on the seeds of the tulip poplar at National Park, Gloucester County, N. J.

A flock of 50 Red-backed Sandpipers were seen at Corson's Inlet on February 5. Since a flock of about the same size was observed here early in December (see last report), it would indicate that the birds were wintering. A small group of Sanderlings accompanied this flock of Sandpipers.

Other records of interest are: Ipswich Sparrow and 4 Snow Buntings, Cape May, N. J., December 18; Northern Shrike, Mt. Holly, N. J., January 8, and Winslow Junction, N. J., February 5; Saw-whet Owl, National Park, N. J., January 15; 6 Great Black-backed Gull, Seaside Park, N. J., January 22, and 6 at Corson's Inlet, N. J., February 5; Mallard drake, 1.

Robins, which were absent for the most part during December, began to appear at numerous points by the middle of January (7 at National Park, January 15) and since have been quite common.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—A winter of about normal weather drew almost no unusual northern birds to the region about Washington during December, 1921, and January, 1922. Notwithstanding this, some of the ornithological happenings may be worthy of mention.

The Herring Gull has been as common as ever along the Potomac River, and the Ring-billed Gull, although not so numerous, has also been present. The Bonaparte's Gull, which is of rare occurrence after December 1, was several times noted on the Potomac River during December; and also, by J. Kittredge, Jr., on January 1, about the Tidal Basin at Washington. The Pied-billed Grebe, for which there is no previous certain winter record, was reported by E. A. Preble from the mouth of Little Hunting Creek, Va., on December 24.

Ducks to the number of several thousand frequented the Potomac River below Washington, the Greater and Lesser Scaup Ducks forming the bulk of the flocks. In addition to these the following other species have been reported: American Merganser, Hooded Merganser, Mallard, Black Duck, Canvasback, American Golden-eye, and Ruddy Duck. In addition, the Old Squaw, White-winged

Scoter, and Surf Scoter were noted on Chesapeake Bay, near Fairhaven, Md., by Mr. Kittredge. On December 12, a flock of 7 Mallards was seen flying at a considerable height over the northern part of the city of Washington. This recalls the fact that wild Ducks, apparently attracted by their own kind, and, presumably to feed and rest, occasionally drop down for a time into the pond in the Zoölogical Park, where various species of North American Ducks and Geese, pinioned but not confined, dwell together as a happy family.

The Red-winged Blackbird, which is rare during winter in the vicinity of Washington, was seen by L. D. Miner, on December 17, at Dyke, Va., and on January 2 near Arlington, Va. The Golden-crowned Kinglet is relatively common this winter for the first time in several years. The European Starling is becoming one of our common birds, and is more numerous this winter than ever before, roosting, in considerable flocks in places about buildings within the limits of the city of Washington.

Mr. T. Denmead reports an unusual gathering of Robins near the mouth of South River, in Anne Arundel County, Md., where he saw birds to the number of 500 or more on January 21 and 22, scattered over a number of fields, feeding on the ground and eating the berries of the holly trees in the vicinity. The birds were said by the residents to have arrived on January 20. While a few Robins ordinarily winter in this region, the great bulk of the species moves farther south, and such a large number in any one place during January is notable.

What appear to be rather remarkably early records for the singing of birds were obtained during January. The White-throated Sparrow was heard singing on January 14, the Song Sparrow on January 23 and 30, the Junco on January 30, and the Cardinal on January 21, 28, and 29. It is rather interesting to note that none of these days was much warmer than the days preceding or following. Furthermore, a pair of Cardinals was observed mating on January 14.

Of considerable interest was the behavior of birds in the outskirts of Washington during

the heavy snowstorm that brought twenty-six inches of snow between the evening of January 27 and the evening of January 28. Previous to this time birds had been very scarce about the writer's home, but on the 28th, ten species and a considerable number of individuals appeared about the house and remained more or less all day. On January 29, which was cloudy with occasional snowsqualls, the birds were still more numerous, and during the two following days, which were fair, they continued common. During these four days (January 28 to 31) the following species were observed: Turkey Buzzard, American Crow, Fish Crow, Blue Jay, European Starling, English Sparrow, White-throated Sparrow, Song Sparrow, Slate-colored Junco, Cardinal, Tufted Titmouse, Carolina Chickadee, White-breasted Nuthatch, Mockingbird, and Bluebird. The heavy blanket of snow over all the country had evidently given them some trouble in procuring a livelihood, and they were thus driven to seek food in unusual places. The Juncos were the most familiar as well as most numerous visitors, and came readily to the back yards for crumbs and cornmeal thrown out for their benefit. The Bluebirds flew disconsolately about the yards, but were with difficulty attracted to feeding-stations. Since relatively warm weather succeeded the storm, and the snow rapidly melted, soon leaving spaces of bare ground, the birds gradually withdrew from the outskirts of the city, and doubtless no serious loss of life occurred among these bird visitors.

—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

CHICAGO REGION.—The winter in this region has been very mild, as it was last year; no heavy snows and only a few days of real cold weather. A number of species have found food enough for them to stay here instead of going south. A few visitors have come in from the north also, which seems to bear out the belief that it is more the food-supply than the temperature that controls the movements of winter birds.

The large crop of acorns has kept the Red-headed Woodpeckers here all winter. Others reported staying here are: Marsh Hawk,

January 8; Red-tailed Hawk, January 15; Sparrow Hawk, January 6, from the Duncs and also from Waukegan, December 23 and 24, where Mr. Lyons found one trying to reach a Junco he had caught in a banding trap; Red-breasted Nuthatch, January 13; and Northern Flicker, January 30, seen by H. K. Coale at Highland Park, Ills. Meadow-larks have been reported from all sides of the city, and as far north as Kenosha, Wis., fifty-two miles north of Chicago. Robin and Brown Creeper were seen December 27 by Dr. C. W. G. Eifrig, at River Forest. W. I. Lyons reports from Waukegan, Winter Wren and Golden-crowned Kinglet, January 2, and a Fox Sparrow that has been around his yard all winter. January 22, the writer found a Song Sparrow at Beach, Ills.

The common winter birds are here as usual. Others reported are: Northern Shrike, January 4, and Rough-legged Hawk, January 9, from River Forest; and Bohemian Waxwings, December 28 (Dr. Eifrig), January 24 and February 4; also Northern Shrike, January 9, at Glencoe (S. A. Harper); Horned Grebe, January 15, and Purple Finch, February 5, at Dune Park, Ind. (Mrs. Cramp).

January 22, the writer saw a Saw-whet Owl which had been shot west of Highland Park, Ills. It was sitting on the ground in some thick hazel brush. A pair of Snow Buntings were seen at Beach, January 2. No Ducks have been reported yet, probably as they stay too far out in the lake for identification. Some were seen by the writer at Beach January 2 and 22, but could not be identified.—COLIN CAMPBELL SANBORN, *Chairman Report Committee, Chicago Ornithological Society.*

MINNESOTA REGION.—The first severe cold of the winter came in late December—10 degrees below zero on the morning of the 23d and 18 below the day before Christmas, at Minneapolis, with 24 below at Moorhead, 23 below at Fergus Falls, and 22 below at Duluth, the coldest days since February, 1920. Twice during January there were cold spells of a few days' duration when the thermometer ranged from 10 to 20 degrees below zero at various places in the state.

From the 21st to the 24th inclusive, intense cold and high winds prevailed generally and a heavy fall of snow occurred in the northern part of the state. Snow and blizzards came again on February 1 and 2, with the heaviest fall of snow of the winter up north—15 inches at Duluth. Milder days followed until, on February 11, 13, and 14, morning temperatures at Minneapolis were 6 to 14 below, 28 below at Moorhead on the 14th, 18 below at Duluth, and 8 below at La Crescent in the southeastern corner of the state. So we have had some real winter weather, but the intense cold has never been of long duration. In the southern part of the state there is only a moderate amount of snow on the ground, but in the north woods there is a heavy blanket. Lake Superior is largely open, and many Golden-eyed Ducks, Old Squaws and Herring Gulls are wintering there.

The last article contained a reference to the unusual influx of Magpies this winter. Additional records for the state have been received as follows: Brainerd, 3 (Mrs. Thabes); Le Sueur County, 2 (Warden Olson); Fairmount, 9 (Dr. Luedtke), Crookston, 3 (Dr. Langevin)—17 since the last report, making 51 in all. A number of these birds have been accidentally caught in traps set for fur-bearing animals.

Evening Grosbeaks have continued to be reported from the same and several additional localities; Pine Grosbeaks from Fosston (Miss Torgerson) and Pine County (Warden Greig); Snow Buntings from the Red River Valley (numerous, Dr. Langevin), Lake Washington, Le Sueur County (Warden Olson), and Pine County (Warden Greig); and Bohemian Waxwings from many places chiefly in the southern portion of the state.

Dr. Langevin, of Crookston, writes: "There seem to be more Arctic Owls (Snowy Owls) here than usual. I have had several brought in to me since January 1. It is too bad that everyone seems to want to kill this beautiful bird. I do wish there was some way of stopping this unwarranted practice." This Owl has also been reported from Pine County (Greig) and Hutchinson (Eheim).

But few Goshawks have been reported, and only one or two additional Butcher-birds. Redpolls continue abundant.

Professor Hornbeck of Carlton College, Northfield, reports that Red-breasted Nuthatches remained there until late in December. Golden-crowned Kinglets were at Owatonna until Christmas time (Jager). Under date of January 21, Dr. Luedtke, of Fairmount, writes: "Brown Creepers are safely wintering so far. Temperature has been to 14 degrees below only once this winter. The Meadow-larks and Robins that were here in December have not been seen this month. Thus far the winter may be considered mild with only a little snow." Fairmount is in Martin County, not far north of the Iowa line.

Wintering Robins have been reported from several places: Hutchinson, December 25, (Eheim); Red Wing (Densmore); Anoka (Gillis, who writes under date of January 20: "A Robin has come to be fed all winter at a residence in the town, and a Red-headed Woodpecker has been seen about a poultry yard up to and including yesterday"). A rather surprising record is of two Robins away up at Duluth on December 26 (J. E. Kraeger).

Miss Densmore reports 4 or 5 Red-winged Blackbirds wintering at Red Wing and they have been seen elsewhere also.

A flock of Mallard Ducks was seen at South Heron Lake on January 28 by Warden C. D. Gibbs. The Mallard will often remain in the southern part of the state wherever there is open water on which they can rest at night and nearby corn-fields where they can feed in the daytime.

Mr. Alfred Peterson, of Pipestone, Pipestone County, in the southwestern corner of the state, wrote as follows under date of December 21: "Was out on the 18th and there were plenty of birds to be seen as this list, named in the order of observed abundance, will show: Many Crows, nearly 200 Horned Larks, about 150 Prairie Chickens, 20 Short-eared Owls, 12 Tree Sparrows, 7 Redpolls, 5 or 6 Lapland Longspurs, 1 male Marsh Hawk, 1 Chickadee, and 1 Snowy Owl." Mr. Peterson has previously indicated the exceptional abundance of the Short-eared Owl in that locality—far out in the prairie portion of the state. In a subsequent letter the same writer reported a Wilson's Snipe seen on January 8 in a spring-hole near

the town. This is not a very unusual occurrence in the southern half of the state.—
 THOMAS S. ROBERTS, *Director Zoological Museum, University of Minnesota, Minneapolis, Minn.*

KANSAS CITY REGION.—A most interesting local Christmas Census including 41 species was made this year by seven observers but was compiled too late for inclusion in the February number of BIRD-LORE. Among the species of unusual occurrence at this season were 10 Mergansers, 26 Mallards, 1 Wilson's Snipe, 50 Doves (feeding on soy beans!), 1 Belted Kingfisher, 3 Yellow-bellied Sapsuckers, 2 Red-headed Woodpeckers, and 15 Red-breasted Nuthatches. A few common winter species were not listed, and only one small troop of Harris's Sparrows and a single Fox Sparrow were noted. Meadowlarks and Towhees, often missing from Christmas lists in the Kansas City area, were rather common, and Blue Jays were abundant. Owing to the scarcity of poison ivy fruit this winter, no Myrtle Warblers have been found, and but 4 Robins had been seen up to February 5. The Mergansers listed have spent the entire winter in a stretch of the Missouri River in sight of William Andrews' cabin. Two large Gulls and several Pintails were also under observation from this station during the holiday season.

Wintering Hawks of three species became common on the prairies and uplands of the county about the time of the severe cold of mid-January. Short-eared Owls also became numerous at this time, at least 50 being seen daily during late January and early February in the southern outskirts of the city, especially on the high ground between Waldo and Swope Park. Competition has been keen, as the birds include back yards and school grounds in their hunting ranges, and may be seen sailing about during all the hours of daylight in quest of their rodent prey.

A flock of 10 or 12 Meadowlarks weathered the January storms and could be heard singing their ventriloquous songs any day in the neighborhood of 63d Street and Wornall Road. At least one covey of Bob-whites has wintered safely in the Country Club District,

and another in the Forest Hill region. These birds are protected at all seasons chiefly by a wholesome public sentiment. Their nests are found during the breeding-season in most unusual places in the southern precincts of the residence district of Kansas City, and the species seems actually on the increase in this fast-growing community.

A few Golden-crowned Kinglets have wintered in the Fairmount Park neighborhood where a small flock of Bronzed Grackles have also been seen at intervals during January and February.

Bluebirds, Robins, and Purple Finches were noted in the Dodson and Indian Creek region on February 5, and on February 9 and 10 dozens of Western Meadowlarks were heard piping on the Waldo prairies. A few of the eastern form were mixed in with the western birds but were not so confident in their song.

It is good to be able to offer authentic data on the southern extent of the Magpie invasion in the Missouri valley. These birds have reached the southwestern corner of Nebraska and have crossed over into Missouri. Charles E. Dankers, of Corning, Mo., writes that 50 individuals of this species have been under observation all winter in his corner of Holt County, and it is hoped that observers further down the river may yet record Magpies in Missouri.—HARRY HARRIS, *Kansas City, Mo.*

PORTLAND, (OREGON) REGION.—The winter season in the Portland region has been marked by long-continued cold weather of unusual severity, and this has had a marked effect on the abundance of birds. Just before Thanksgiving, the Columbia Gorge district, including the eastern edge of the city of Portland, was ice-bound by a severe ice-storm which turned to rain in other parts of the region. All the trees of the Columbia River bottoms were twisted and torn by the weight of the ice and most of the larger trees were stripped of their branches. This district was visited on Christmas day and again on January 8. Gairdner's Woodpeckers, Oregon Juncos, Willow Goldfinches, Oregon Chickadees, Western Golden-crowned Kinglets, Seattle Wrens, Rusty Song Spar-

rows, Oregon Towhees, and a single Ruby-crowned Kinglet—all together in a large flock of several hundred birds feeding in the debris caused by the storm. This association of practically all the birds in this locality in one flock, all feeding on the ground on the broken branches, has endured for nearly two months.

The Audubon Warbler, usually a fairly common winter resident, has been very scarce, although farther south around Corvallis they were found in numbers on December 30. A dead one was picked up in Sellwood on January 1 and brought to Stanley G. Jewett.

On January 19, while crossing one of the Willamette bridges, a Glaucous Gull flew past at close range. There are several records of this bird for Portland, though this is the first for this winter. Glaucous-winged, Western and Short-billed Gulls are as abundant as usual on the river and a few Californias have been noted at various times. The Short-billed Gulls spend much time in the various parks and in the suburban districts, foraging like a flock of Crows.

Crows have been unusually abundant, the several small roosts in the vicinity of Portland all having a much larger population than during the last two years. Such winter birds as the Evening Grosbeak, Varied Thrush, and Fox Sparrows of several subspecies have not been as conspicuous nor as abundant as usual in spite of the severe winter.

The first evidences of spring migration were noted on January 22 when several flocks of Geese were seen, and on January 23 large numbers of Western Meadowlarks and Northwestern Flickers appeared in districts where only a few have been present up to this time. Renewed cold stopped the movement, but the birds already here have remained. The Robins arrived in force last year on January 29, but began to appear here in numbers on February 3 this season. Mr. Gale, in the eastern part of the city, reports that Nuttall's and Golden-crowned Sparrows remained all winter about his feeding-station. The former is rather a rare winter resident. W. A. Elliott reports that a Lutescent Warbler came to his home on December 9 and remained for some time.

Mrs. W. P. Jones reported a strange bird to members of the Audubon Society and later Miss Mary Raker visited the place and identified the bird as the Chinese Starling (*Acridotheres cristatellus*), a bird with which she was familiar from observations made at Vancouver, B. C., where there is quite a colony of these birds. The writer has visited the locality twice (on February 5 and 6) and carefully watched this bird, and agrees with Miss Raker in her identification. Probably this bird is either an escaped cage-bird or a wanderer from the British Columbia colony. It is quite shy, although it frequently visits the feeding-station. Mrs. Jones states that it has been coming to her feeding-station quite regularly since before Thanksgiving. Realizing the necessity for care in basing first records on sight identifications, the writer hesitates to record this bird formally. However, there does not seem to be any chance for mistaken identity of this curiously crested bird. While this is its first known appearance in Portland, there is no reason why it should not eventually spread over the Northwest from the established colony in British Columbia.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—Winter weather culminated in a real freeze on January 19 and a real snowstorm on January 29. The effect of the cold upon the birds was more marked than that of the snow. A temperature of 23 degrees made the Thrasher keep one foot tucked up under his feathers while he warmed the 'inner bird' with suet and bread crumbs. The White-throated Sparrow, on the other hand, hopped about on the frozen drinking-fountain, scratching about quite unconcernedly among the fallen leaves. If he came this way to avoid the cold, he wasted no time grumbling over his disappointment, but showed himself quite equal to the challenge of an unexpected environment. When, on the 29th, the falling snow buried the food provided, the Thrasher gave up trying to dig it out with his beak, but the Fox Sparrow and the Spurred Towhee kept scratching energetically, even after the snow was four inches deep on the feeding-table. Human interference prevented famine for twenty-four

hours, after which the danger was past. In general, few fatalities were reported.

Chilly weather, with frequent frosts, is still prevalent, but, judging from the number of moths which collect about a protected porch-light, insect food is still available. Thrashers and Vigor's Wrens are singing freely, undaunted by rain or wind, while the Anna Hummers, robbed by frost of the honey of the eucalyptus, have turned to the more hardy acacia and Japanese quince.

Titmice were seen investigating nesting-boxes on February 8, and though they put off the day of decision, their frequent songs indicate an increasing interest in nests and mates. A Short-eared Owl was seen on the Alameda marsh lands on February 5 (Mrs. Kelly), and about 100 Band-tailed Pigeons and many Varied Thrushes were reported near Easton on February 12 (San Francisco Audubon Association). February 13 brought the first spring migrant, the Allen Hummingbird (Mr. Storer). The park at Lake Merritt has a number of bird inhabitants not formerly found in that neighborhood. This is no doubt due to the generous planting of toyon and other shrubs which offer cover and food to a number of species. The berries are eagerly sought now by the Cedarbirds and Robins, but Varied Robins, both here and on the University campus, are rare this year.

A census of the water-birds on Lake Merritt, made by a member of the San Francisco Audubon Association, January 15, estimated a grand total of from 3,200 to 3,600 individuals. Of these, Pintails were most numerous, 650 to 700; Coots, a close second; Baldpates, 500 to 550; Canvasbacks and Ruddies, 450 to 500, each; Lesser Scaup, 250 to 300; and Shovelers, 100 to 125. Golden-eyes, Buffleheads and White-winged Scoters each numbered less than a dozen, and a Red-head and a male European Widgeon were equally distinguished as rare birds. Eared Grebes numbered 60 to 65, and Pied-billed Grebes 12 to 15. On February 12 Mr. Storer reported a decided diminution in these numbers, particularly among the Pin-tailed Ducks.

Mrs. Kelly has visited the Alameda shore about three times a week, making a special effort to observe particularly the effect of storms upon the shore-birds. She reports

that the flocks of Western and Red-backed Sandpipers have numbered about 1,000. One Semipalmated Plover and one Sora Rail were seen early in January, and 2 or 3 Dowitchers appeared about once in two weeks. A dozen Willets were always to be seen, while about 24 Black-bellied Plovers covered the flats only at very low tide. Godwits were always more conspicuous during stormy weather, and on January 4, which was a cold, stormy day following mild days, there were 50 Godwits and about 30 Black-bellied Plovers which seemed to be seeking protection in the estuary.—AMELIA SANBORN ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—The period under consideration has been one of frequent storms of a severity experienced ordinarily only about once or twice in a decade. The snow-fall in the mountains has been reported as averaging from one to four feet at the 2,000- to 4,000-foot levels, and much deeper at the higher altitudes. Temperatures many degrees below freezing have prevailed during or following nearly all of the succession of storms. An appeal from a forest ranger in the Sierra Madre Mountains for food for the suffering birds was a new note, perhaps struck for the first time in this region.

A county game warden reports 1,000 Band-tailed Pigeons near the mouth of the San Gabriel Cañon, supposed to be birds that normally winter in the region north of Mount Wilson. Audubon members have seen small numbers of them in the Beverly Hills and in Griffith Park, where also a few Blue-fronted Jays appeared early in February. Cedar Waxwings and Robins swarmed into the Park in immense flocks, making short work of the toyon berries, which had until then been practically untouched. The Waxwings then disappeared but the Robins are still taking the remnants of a supply of pepper berries that would normally have lasted through the season. Waxwings have been common in Whittier since late November, but were not listed elsewhere until late in January. Mountain Bluebirds are frequently seen in open fields, as are also flocks of Pipits and Horned Larks. Pine Siskins have been seen swarming in the cañons, feeding on the

alder catkins. Chickadees have been several times reported from Pasadena and Eagle Rock and Red-breasted Sapsuckers from several different parks. Two of these handsome and not common visitors have evidently selected for their winter home the same long row of pepper trees that are furnishing sustenance to so many Robins, and there they may be seen daily visiting their freshly excavated and liberally flowing source of supply.

The Lewis' Woodpeckers noted early in the season have remained in the vicinity where first observed, and many others were seen in January among the oaks of the Canejo region, where Slender-billed Nuthatches, Robins, California Woodpeckers, and Crows were also numerous. Mountain Bluebirds added a delicate charm to the brilliance of the assemblage. A Kingbird, presumably the Cassin's, has remained on a ranch at Artesia. Say's Phoebe, Western Bluebirds, and Ruby-crowned Kinglets are distributed about as usual. Dusky Warblers have been noted during each month, and Western Gnatcatchers have visited many city gardens. During the fall, their abundance about the brushy margins of fields was many times noticed, but as garden visitors they add a new bird to our lists.

Two Phainopeplas have been noted, one early in January and one February 10, in a different locality; Both were females. A Black-and-White Warbler was collected early in February by a well-known ornithologist. There have been but very few records of this Warbler in the state.

Hermit Thrushes and Fox Sparrows are scarce; Gambel's and Golden-crowns abundant; and a large flock of the handsome Western Lark Sparrows is usually to be found in the vicinity of Eagle Rock. California

Purple Finches in small numbers are often seen among the oaks of foothill cañons.

Sharp-shinned Hawks are numerous and bold, and have not been slow to discover the gardens in which the presence of birds is encouraged, their depredations occurring frequently at our very doors. California Gulls make regular daily rounds of the school yards throughout the city and also extend their foraging excursion far inland, many of them following the plow.

Loons, Western and Horned Grebes are common on the ocean, and the beautiful Bonaparte's Gulls are wintering in large numbers. Two Caspian Terns were seen near San Pedro on January 15. The Egrets of the inner harbor are suffering from oil in their plumage, as are also many Gulls. The bird-life of these shallow waters and mudflats has presented an interesting study. At the opening of the hunting season many Marbled Godwits and Black-bellied Plover were there, with a few Willets, Long-billed Dowitchers, 13 Avocets, and 15 Egrets, besides many Sanderling and small Sandpipers. On December 18, began a record rainstorm, which continued a week, resulting in floods and the filling of every slough and swale in the region. The abundance of fresh water, so long lacking, did not tempt the Avocets out, for January 9 the full quota of Avocets were there. January 30, two weeks after the close of the shooting season, they were gone. The date of their departure is not known, no visit having been made to the place during the period intervening between the dates mentioned. Ten of the Egrets had moved to the marshes near Anaheim Landing on January 28. At this date the lagoons were filled with Ducks, Pintails being noted as very numerous.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

FIRST ANNUAL REPORT OF THE DIVISION OF ORNITHOLOGY OF THE COMMONWEALTH OF MASSACHUSETTS, By EDWARD HOWE FORBUSH. Reprinted from the annual report of the Department of Agriculture for the year ending November 30, 1920. 8vo, 47 pages, 4 plates.

It is, we believe, demonstrable that the widespread interest in birds which exists in Massachusetts is due to the services of the state's Director of its Division of Ornithology no less than to the natural inclination of its inhabitants. For many years, during which Mr. Forbush has represented organized ornithology in Massachusetts, he has exerted not only a potent influence in behalf of birds but also in behalf of bird students, who have found in him and his publications a guide and instructor.

We learn from the present publication that nine pamphlets were issued by the Division during the year. They deal with such practical subjects as feeding appliances, outdoor bird-study, Arbor and Bird Day, bird-houses, and the like. Some were new, others reprints or revised editions, and their titles show that character of the stream of information which has been flowing steadily from Mr. Forbush's active pen.

His 'Report,' which constitutes in effect the thirteenth in the series, includes a general statement of the status of international bird protection, and the results of researches on the food habits of Woodpeckers in which it is said that "on a whole, the Downy Woodpecker is one of the most beneficial birds of New England, a persistent enemy of borers, bark beetles, codling moths, and other destructive tree pests; and the Sapsucker, which may be more or less destructive in the northern forests, apparently does little harm to orchards in Massachusetts." A review of the bird-life of the year should be both stimulating and useful to field-students, and a preliminary report on an ornithological survey of the State promises most interesting results. A recommendation for the publication of a 1200-page illustrated monograph

on the birds of Massachusetts, by Mr. Forbush, we are glad to learn has been approved, and it is safe to predict that this work will take its place in the front rank of state documents on birds.—F. M. C.

ANNOTATED LIST OF THE AVERY BIRD COLLECTION IN THE ALABAMA MUSEUM OF NATURAL HISTORY. By ERNEST G. HOLT. Biographical Sketch of Dr. William Cushman Avery, by his sister, Mary E. Avery. University, Ala., 1921. 8vo, 142 pages: frontispiece.

The State authorities of Alabama are to be thanked for publishing this account of the life of a fellow-citizen of whom they have reason to be proud, together with a record of his contributions to our knowledge of Alabama birds. The latter includes a list of the 216 species in his collection with often extended notes on their habits extracted from his journals.—F. M. C.

BULLETIN OF THE ESSEX ORNITHOLOGICAL CLUB. Vol. III. No. 1, December, 1921; Salem, Mass. 8vo, 88 pages, 1 plate, 1 map.

The editor of this publication, Arthur P. Stubbs, reports that the Essex County Ornithological Club has had a year of unusual activity. Its membership limit of 75 has been reached, it has purchased a camp, and its meetings have been better attended than in any previous year.

In addition to a record of meetings, the annual bird-list, notes etc., this Bulletin contains papers on 'The Wild Turkey in New England' by Glover M. Allen, with a map showing that the bird reached the northern limits of its range at the mouth of the Penobscot; 'The Status of Certain Ducks at Wenham Lake,' by John C. Phillips; 'The Terns of our Coast; a Retrospect and Prospect,' by Charles W. Townsend, M.D.; 'How Much Do Loons Use their Wings Under Water?' by Edward Howe Forbush; 'Some Buzzard Bay Birds,' by Winthrop Packard; and 'Changes in the Essex County Avifauna,' by S. Gilbert Emilio.—F. M. C.

The Ornithological Magazines

THE AUK.—The January, 1922, number, which begins the thirty-ninth volume of *The Auk* (the forty-seventh, with the 'Bulletin of the Nuttall Ornithological Club,' of which it is a continuation) opens with 'In Memoriam: Joel Asaph Allen,' by F. M. Chapman, with frontispiece, portrait photograph. As Editor of *The Auk*, Dr. Allen was the pilot of a publication which for so long has carried forward the genius of American ornithology. Though he had the satisfaction of surrendering the helm to other able hands several years before his death, *The Auk* will remain, among other things, a monument (which he would appreciate) to his interest and work in ornithology. "It is impossible to consider Dr. Allen's career without feeling that few men have more nearly and more happily approached the full measure of their potential achievements."

C. W. and Enid Michael record detailed behavior studies of a mated pair of Harlequin Ducks, evidently nesting, in the Yosemite Valley, Calif., though the nest could not be found. These Ducks were particularly fond of bread, and by means of a floating food-tray remarkable photographs (two full-page plates) of this beautiful, bizarrely colored bird were obtained.

'A Myrtle Warbler Invasion,' by C. L. Whittle, records a remarkable concentration of the bird moving northward through the outer coastal wax myrtle belt near Charleston harbor, S. C., 24000 individuals (estimated) being observed at one point.

"What birds *can* be satisfactorily identified in the field?"—"When is a sight record of scientific value?" These are questions of interest to bird-lovers and to modern ornithologists who must supplement a knowledge of the dead bird with that of the living. They are ably discussed by Ludlow Griscom in 'Problems of Field Identification,' from the point of view of the professional ornithologist, and also of the amateur observer. His paper should be given serious consideration by everybody (though everybody will not agree with all its details), for nowhere else in the field of science is the personal equation more constantly to be faced and reckoned with than in such matters.

'A Calendar of Bird Migration,' by Norman Criddle, refers to a locality in Manitoba, and is based on twenty-five years' observation summarized in tabular form. 'Supplementary Notes on the Birds of Berkshire County, Massachusetts,' by Walter Faxon and Ralph Hoffman, gives faunal data on some 47 species. "The European Starling is now generally distributed as a permanent resident throughout the Housatonic Valley towns." 'Bird Distribution in Eastern Kentucky,' by R. E. Horsey, lists 84 species.

C. J. Hawkins in 'Sexual Selection and Bird Songs' discusses a fascinating subject, one which, it seems to the reviewer, would be elucidated by a better knowledge of the doubtless several functions of a bird's song. Hawkins would have us believe that tendencies to a variation in song simultaneously effect numerous individuals in a given area and are fixed by isolation as physical, racial characters doubtless often are. In 'Notes on Tubinares,' R. C. Murphy calls attention to a first North American record of the Yellow-nosed Mollymawk, a wanderer from the southern ocean; to the fact that the Mediterranean as well as Azorian, etc., race of Cory's Shearwater has been taken off Long Island, N. Y.; and to what is known of the range of Hornby's Petrel, recently found to be common off Peru, and probably not entitled to a North American status, even as a wanderer. H. C. Oberholser concludes that the Long-eared Owl, and the Snowy Plovers of the Pacific Coast, are but geographic races of species found in both the Old and New World; and that Hutton's and Anthony's Vireos are indistinguishable even as races. Other papers are 'A New Burrowing Owl from Colombia' (Stone), 'Thirty-ninth Stated Meeting of the American Ornithologists Union,' and 'Report of the Secretary [of the A. O. U.]' (Palmer).

'General Notes' contain a variety of items, mostly of faunal interest. McAtee supplies data on the food of the Guacharo or Oil-bird, remarkable among birds allied to the Goatsuckers in being a fruit-eater; and there is interesting matter on the habits of the Short-billed Marsh Wren near Montreal, Canada, by L. McI. Terrill.—J. T. N.

Bird-Lore

A Bi-Monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN
Contributing Editor, MABEL OSGOOD WRIGHT
Published by D. APPLETON & CO.

Vol. XXIV Published April 1, 1922 No. 2

SUBSCRIPTION RATES

Price in the United States, one dollar and fifty cents a year;
outside the United States, one dollar and seventy-five cents,
postage paid.

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

A MAGAZINE for young men has sent out a series of questions regarding the principal requirements of various vocations, with the object of securing information which might be of service to its readers in choosing a profession. We have been asked to reply to these inquiries as an ornithologist, and, believing that the readers of BIRD-LORE will have an especial interest in what we consider to be the requirements of the profession of ornithology, so far as they may be revealed by these questions, we present our answers to them below:

REQUIREMENTS

Physical.—A sound body no less than a sound mind.

Mental.—An inborn love for the study of nature with so intense an interest in birds that they, more than any other forms of life, demand one's attention. Love of truth for truth's sake: patience, accuracy, imagination, and thoroughness in investigation; fairness in making deductions: clearness and reasonableness in forming conclusions.

Educational.—A good general education, with at least a reading knowledge of German, French, Italian, Portuguese and Spanish, and for an American, ability to speak the last named language. A general biological training with work in botany, geology, physical geography, and climatology, and intensive studies in ornithology, including embryology, anatomy, classification, zoogeography, life-histories and the relation of a bird to its organic and inorganic environment.

Social.—Tact, courtesy, and consideration

for the perhaps wholly different viewpoint of others promoting success in exploration; sympathy with fellow-students and a desire to impart information leading to success in laboratory, classroom, and lecture-hall.

General.—Confidence in the value of one's profession to mankind; definite research problems with a carefully conceived plan of study and a steadfast, persistent adherence to it.

CHARACTERISTIC CONDITIONS

Nature of Work.—Includes the study of evolution, zoogeography, economics, pedagogics, and æsthetics as they may be interpreted or expressed in the lives of birds; its exact nature to be determined by the requirements of one's position, by opportunity, and by preference.

Environment.—Field, laboratory or classroom, or all three.

Personnel.—In the field, hunters, guides, etc.; in the study in classroom, one's colleagues, assistants, or students.

Experience.—To be acquired in practice.

DISADVANTAGES. Inadequate remuneration. The salary received may be sufficient for one, but it is usually too small to meet the requirements of a family.

ADVANTAGES. Opportunity to follow one's chosen calling; to gratify an insatiable desire for research; to make work play, and, whether indoors or out, daily to renew one's joy in life.

COMPENSATION. As a collector: From expenses to \$200 per month and expenses. In the study: From \$1,200 to \$5,000 per annum.

ADVANCEMENT. Not to be measured by office standards but by the degree of success achieved through one's labors.

SOCIAL SERVICE. Limited only by one's belief in the value to man of contact with Nature and by one's ability to prove that Nature's beauty, joy, and freedom are most eloquently expressed in the lives of birds.

RELATED OCCUPATIONS. To be determined by one's civic conscience. The Audubon Societies, Nature-Study Clubs, Boy Scouts, and allied organizations offer abundant opportunity to practice as well as to preach.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y

BIRD-PLAYS FOR THE SCHOOL

It is said that if we could utilize the energy that is expended in play, the wheels of industry could be turned without work. Certainly man likes to play and it is equally certain that he does not like to play alone. Moreover, he needs to play. The old dictum, "All work and no play makes Jack a dull boy" applies to grown-ups as well as to children. Man must have recreation and he must enjoy it with others. Man is a social being, and even if he could play all the time, it would not satisfy him if he played alone. It is the society, the club, the team that satisfies because it combines recreation with social intercourse. The value of this social recreation, this playing together, is recognized, today, not only in the schools and churches, but even in the larger industrial plants where the efficiency of the workers counts for as much as the perfection of the machines. And so these factories have their recreation-grounds, their dances, their baseball games, anything to get the employees to play together and develop teamwork.

The idea of getting workers to play together is not a new one, it is merely finding expression in new ways. The old-time folk dances, the parades of trades unions, the church socials, the Sunday-school picnics, grew out of this same desire to bring together the workers in a common field for mutual recreation that they might learn better to work together. Today we are hearing more about Rotary Clubs where all kinds of business men get together for a sociable hour and luncheon once a week, of community sings, and even of community drama, all making for friendly coöperation or neighborliness, one of the greatest needs of any community.

During the World War men and women of every class learned how to work together for a common cause. There was one great ideal binding them together and urging them on. The spirit of self-sacrifice was in the air and that democratic spirit of neighborliness was felt as never before, and the country grew better for it. But it was work, and as soon as the war was won, the world slumped. Communities had learned to work together but now everyone was ready to relax, and communities had not yet learned to play together. Of course, each community had its ball nine and knew how to gather on the sidelines and shout, but, after all, those who actually participated in this community sport were a very small minority. The ball nine, the bowling-league, the sewing-

circle, the subscription dance, the Chautauqua lectures, and the church socials may include everyone in town and give everyone some form of recreation, but they are as little aid to coöperative service as a pasture full of wild horses are to the farmer who is ready to plow. There should be some one form of recreation which includes everyone in the community and in which everyone has an interest and, at least, takes some small part in order to have teamwork and establish true neighborliness.

Now what has this to do with a school-play or with birds? Just this: We have all been working for years for the protection of birds or to awaken an interest in birds in our home communities. Is it not about time we began to play or, at least, began to get our neighbors to play at protecting birds. Perhaps we have not been very successful in getting them to work for birds, but possibly they would be willing to play, if their children were in a school pageant, or masque, or play, based upon some phase of bird-life. I know they would. Of the communities I am familiar with, the ones which show the greatest spirit, the most widespread interest in birds, are those in which not only the real bird-lovers have been working for the birds, but in which some school-play or masque or pageant has been given by the school children. This common endeavor arouses many parents who have never before listened to birds' songs.

In 1916, New York City presented a masque by Percy Mackaye called 'Caliban.' I say New York City presented it because several thousand persons of every station of life took part and every nook and corner of the city was searched for costumes and accessories. Everyone felt that he was taking part in it because he had furnished an aunt or a cousin or a family heirloom to help make it a success. And it was a success and had a far-reaching effect, not only upon the modern drama, but upon the people of New York City that took part or helped to make up the audience. And it has been repeated with equal success in St. Louis and Boston.

Perhaps the most successful bird club in the country is that at the small town of Meriden, N. H., located twenty miles from a railway station. One of the reasons for its success and its far-reaching help to similar organizations goes back to 1913 when it presented a bird masque by the author of 'Caliban,' entitled 'Sanctuary.' Bird club and town are, today, almost synonymous, for there is such a unity of spirit that rose from their common effort in presenting this masque. Much of the credit goes to Mr. Ernest Harold Baynes, the leader and director, for no masque or pageant or school-play can be a success without an efficient director. In fact, the first thing to do when you decide to give a school-play is to look about for the best director that the school or community affords. Find him before you even decide whether to give an original play or one of those which you will find in BIRD-LORE or elsewhere. Don't be afraid to invite him or her to undertake it, for even the busiest are flattered by an offer to direct something, and to those that have the gift, it is almost a mania. They would rather direct than eat.

Next, find someone who can write a bird-play, or else write it yourself, basing it upon some phase of bird-life like the return of the birds in the spring; the value of birds in the garden; the need for feeding the winter birds; the need for bird-houses or bird-baths, etc. The more local interest that can be woven into it the better. The talent to write a good play is scarcer than that to direct, however, and it may be necessary to utilize one that has been used elsewhere. 'Bobbie in Bird Land' that was printed in BIRD-LORE Vol. XIX, No. 6 has been presented successfully in a number of places and will be found quite easy to costume and present in the ordinary school.

A word of caution should be given to the one who is to write the play. Above all else, use familiar American birds as the characters and have the facts employed accurate. Do not introduce Skylarks, and Linnets, and Nightingales and other foreign birds into an American landscape, and do not have summer birds appearing in winter or winter birds in summer. It may well be that the one in the community most familiar with birds is not the most capable of writing the play, but his knowledge should be used to correct any errors of fact that are likely to creep in through the desire of the author for additional color or music in some scene.

A very simple form of playlet for the younger children can be presented very attractively by costuming them to represent different birds that are the actors in well-known bits of bird-poetry or prose. Let each child recite that portion which refers to the bird which he represents. Such a playlet was presented very successfully by the boys of St. Andrew's Natural History Club, of Stamford, Conn., under the direction of Miss Albertina Schleinkofer, from whom the details can be secured. Lines from Longfellow's 'Studying Nature' and 'The Birds of Killingworth' were used, as well as 'The Song of the Birds' by W. W. Caldwell, and parts from Tennyson and Whittier on the Blackbird and the Gray Parrot. Our bird literature is full of beautiful lines that could be used in this way, and the expense of making costumes from crepe paper or cheese-cloth is not great. No plot is necessary, each 'bird' entering, reciting his piece, and retiring to the back of the stage. A song or a recitation by the entire group makes a fitting conclusion.

A somewhat more elaborate bird-play, entitled 'Nature's Follies,' was presented very successfully by the Audubon Society of the Williamsport (Pa.) High School, under the direction of Miss M. M. Bubb, from whom a copy of the play can be secured. Describing it, Miss Bubb states:

The play was written by Carolyn Wein, a member of the Society. The theme of the play was to interpret the lives of birds, flowers, and grasses into terms of everyday life, and in that way to link the out-of-doors more closely with human life. The main plot dealt with the domestic troubles of the Robin family.

All the costumes were designed and made by those taking part in the play, with the assistance of several members of the High School Parent-Teacher Association interested in the work of the Society. Most of the costumes were made of crepe paper, and an endeavor was made to have the effect and coloring as natural as possible.

As the curtain rose for the first act, the 'Spring Song' was played by a piano, violin, and cello trio. The scene was a large garden in early spring. Wire strung across the back of the stage was interwoven with greens so that it gave the appearance of shrubbery in the background. A white fence was placed in front of the shrubbery and rhododendron plants decorated with crepe paper flowers, on either side of the gate, completed the background. Tree stumps and two garden seats completed the setting.

The grasses, nine girls costumed in green, were lying in various positions on the stage floor. The daffodils were grouped in the background. Father Time and Mother Nature were awaiting the coming of Spring.

The grasses stirred and awoke. With Isabel Brown, as solo dancer, they rendered a musical number consisting of a dance and song, 'Welcome to Spring.' Then at the call of



COSTUMES REPRESENTING DAISIES

Human flowers add much to the stage-setting and provide parts for many additional children in the bird-play

Mother Nature the flowers woke up. Spring entered dancing, and after being welcomed by the different groups was reprimanded by Father Time for being late. Then the daffodils danced and the early spring birds came trooping in. The Junco said good-bye, just as Mr. Robin and his family came rushing in. They were late because they had been held up by a snowstorm. After a general renewal of acquaintance, the scene ended with a bird-hop.

In the second act the daisies were on the stage as the curtain rose. The scene was the same as in the first act, only the rhododendron was not blooming, and the flowers in the background were sunflowers, nasturtiums, sweet peas and pansies.

Mother Nature was worried about the flowers since everything was affected by the extreme heat and lack of water. A terrific storm came up and the birds dispersed. It was during this act that the trouble of the Robins began. Mr. Robin became very angry because of an accusation brought against Mrs. Robin by Mr. English Sparrow. He left Mrs. Robin heartbroken. The other birds endeavored to console Mrs. Robin as another storm came up. After the storm Katydid appeared out of the darkness and sang 'Katy Did It.'

The third act opened in late fall. The garden was strewn with dead leaves, and bitter-

sweet vines hung over the fence. Mr. and Mrs. Robin were reunited just before time for their departure to the South. The grasses sang 'Farewell Robin Redbreast.' The flowers fell asleep and Queen Winter came with her snow fairies. The act closed with a snowstorm.

The physical training teacher took charge of the dancing. The songs were suggested and directed by the music teacher. The whole play was directed by a paid coach.

Enough money was cleared for the purchase of two bird-baths. These baths will be dedicated in March. One bath is to be placed on the boys' side of the building in memory of John Burroughs. The other is to be placed on the girls' side of the building in memory of Beryl Wurster, former secretary of the Society who most excellently took the part of Mrs. Robin in the play. Beryl was drowned last summer while bathing in the river.

The Audubon Society of the Williamsport High School consists of three divisions: the upper class section, the sophomore section and the freshmen section. At present there are almost two hundred members. Each section meets twice every month during the activities period.



COSTUMES USED BY WILLIAMSPORT AUDUBON SOCIETY IN REPRESENTING
NATURE'S FOLLIES

Birds, Spring, Father Time, Mother Nature, Queen Winter, Crocuses, Tulips,
Sweet Peas, Pansies and Daffodils

The ideal way to present a bird-play is out of doors, in some natural amphitheatre, but this is not always available, and one attempting a bird-play for the first time might hesitate to start on the scale necessary to make the out-of-doors event a success. One should bear in mind, however, that the more actors that are used, the more people that are directly involved, the greater will be the success of the undertaking, financially as well as otherwise.

By all means interest the editor of the local paper. He can do much to make

the undertaking a success by the nature of the publicity he gives it. Do not wait until it is all over before announcing the names of those who take part, the names of the committees, and those that have made or donated costumes and accessories. Let the element of surprise be in the play itself rather than in these matters.

When you have selected your play and your director, next select your general committee, each member of which will be chairman of a subcommittee on costumes, on the stage and accessories, on publicity, on programs and tickets, etc. Then proceed to select your children for the various parts, using discretion not only to get the right child for the right part, but to have as many families and divisions of the community represented as possible. The addition of dances and choruses will provide parts for all.

Costumes and stage-settings should be very simple. The more things that can be borrowed for the occasion, the larger the audience is likely to be. Cheese-cloth and crepe paper will serve for practically all costumes that have to be made, and the manual-training class and the sewing-class will be glad to contribute their services.

Above all else, decide what the funds resulting from the play are to be used for before you start any publicity. If possible, make it something for the welfare of the birds that will at the same time fill some community need such as bird-baths for the school-grounds, as at Williamsport; bird-books for the library; feeding-stations and bird-houses for the park, or materials with which to build them and feed with which to maintain the feeding-stations; the financing of public lectures on birds, or whatever your community needs most and would be most willing to support.—A. A. A.

FROM YOUNG OBSERVERS

BOYS HELP FEED THE WINTER BIRDS

The boys of the Columbus (Ohio) Audubon Society help feed the winter birds by helping others to do so. They are manufacturing in considerable numbers a suet-holder which sells for a low price and is easily made. It consists of an ordinary wire soap-holder, from which the long wires have been nipped, fastened to a small board by two screw-eyes, which serve as hinges, and a hook at the top



THE COLUMBUS AUDUBON
SOCIETY'S SUET-HOLDER
MIGHT WELL BE IMITATED
BY OTHER CLUBS

which fastens it shut. The board is attached to a tree by two screws, the wire basket filled with suet and closed, and all is in readiness for the birds.

A novel way of advertising the Audubon Society and at the same time helping to elicit the coöperation of the children is by means of the printed card fastened to the board above the suet which states in bold type that "*Boys help feed the winter birds,*" followed by a list of the birds that can be expected to feed from the suet-holder. Who can resist such an appeal and what bird decline such help? Other bird clubs might follow the lead of the Columbus Audubon Society and decorate all the trees in town with these lunch-counters.

A PINE GROSBEAK IN NEW JERSEY

On December 16, my Nature-teacher, Mrs. Gladys Gorden Fry, and I were walking about in a small evergreen thicket composed chiefly of red and white pines and a few hemlocks.

Suddenly I saw a large bird, about the size of a Northern Shrike, and as a few of these birds had been seen lately in the neighborhood, I thought it quite probable that this was one. However, as we came around the trunk of a large tree, we saw the bird, which proved to be the Pine Grosbeak, quite plainly. He was sitting on the branch of the next tree, eating its cones and buds.

We remained quite still, but in a few minutes it flew to a young cedar and from there to a bank covered with tangled honeysuckle vines.

We watched the bird for fifteen minutes at least and although its black beady eyes were fastened on us it was very tame. During the time we were watching it we were only about two yards from it, but we could not tell whether it was an immature male or a female.

The rest of the birds I saw that day were, Tree Sparrow, Junco, Downy and Hairy Woodpecker, Whitebreasted Nuthatch, Crow, Blue Jay, and Black-capped Chickadee.—CYNTHIA DRYDEN KUSER (age 11 years), *Faircourt, Bernardsville, N. J.*

[The Pine Grosbeak is a rare bird so far south as New Jersey and Cynthia is to be congratulated upon her discovery.—A. A. A.]

A MILITANT KINGBIRD

On the farm where we spend our summers, many interesting incidents have occurred, which, as bird-lovers, we would like to share with others.

Three years ago a pair of Kingbirds raised a family in an old pear tree near our house. When the young left the nest, we took much pleasure in watching one of them which, for two days, spent much of the time on a brush-pile back of the house.

The next year the Kingbirds came back (we think it was the same pair), only to find their special place taken by a pair of Chipping Sparrows. The

Kingbirds did not quarrel with the Sparrows, as we had expected, but flew off to an old apple tree a short distance away and there built a nest.

These birds seemed to take a special dislike to a man employed on the farm whose homeward path lay directly under the tree where the birds had their nest. When he started for home the Kingbird would fly to meet him, a distance of about 50 feet from the nest, and fly close to his hat until about the same distance the other side. Should the man stop an instant, Mr. Kingbird would give the hat a peck. The same performance was repeated every time he passed during the nesting season, no matter from which direction he came, yet he had never molested the nest in any way. Others passed without the slightest sign from the bird.

That year seven different kinds of birds nested in our dooryard. Last year the Kingbirds returned to the same tree and we hope to see them again next spring.—GEORGE W. NEUBAUER (age 14 years), *Bristol, Conn.*

[The fact that birds learn to differentiate between people is strikingly shown about game-farms and aviaries where the keeper is always welcomed with a rush of wings and where a stranger gets a cold reception from the birds. That this is more or less true in the wild state is shown by little incidents such as this related by George. Perhaps they more often mistake friends for enemies than they do enemies for friends. They could make the latter mistake but once.—A. A. A.]

AN EVENING WITH THE BIRDS IN AN ENGLISH PARK

A bitterly cold north wind had been blowing all day; it scurried and whistled as it drove through the pine trees, and the young oaks swayed and tossed with the full fury of the blast. There was no movement in the great park, for the pitiless hurry of the icy wind had searched out every hidden vestige of cover.

As suddenly as it had come, the great wind dropped, but the grey, snow-laden clouds still hurried each other over the landscape.

Towards the middle of the afternoon the sun rose above the clouds in an immense fiery ball, but within an hour's time it was blotted out by the snow which drove down upon the park in a thick, silent wall of falling whiteness; but it was only the winter's last touches and the ground was barely sprinkled by it.

We came in by the little gate in the boundary wall; silence slept in every thicket and the withered leaves of the previous autumn rustled and scraped as we passed. All at once a sleepy cock Pheasant called from the trees in the valley as he flew to his roosting-place in the pine trees. A hen answered him with a startled *cock-cock*, and she, too, flew away over the tree-tops. All around us became alive with little voices; a Blackbird from up the hillside began to sing with light and buoyant snatches of song; and a perky little Wren chattered to himself in the undergrowth, for all the world like a little brown leaf creeping through the bushes; rabbits loped across the path, flicking their

little white tails; and from the opposite hill a Grasshopper Warbler reeled out his challenge and was answered faintly from down the valley.

We built a little shelter under a young oak with the loppings the woodcutters had left and we covered ourselves over and waited. The feathery arms of the snow silently drifted through the trees while a light breeze stirred the branches above us and as evening settled in we became part of the leaves and the undergrowth.

An Owl from a tall oak nearby called his hunger to the moon, and, spreading his wings, he silently flew down through the trees to an old stump not five yards away—motionless as a dead branch he stood, but nothing moved amongst the dead brushwood, and presently he flew away down the valley on noiseless wings.

A little way down the hill was a moist patch of ground covered by a year's growth of poplar. From time to time as we listened we could hear faintly little sucking and whistling noises, as of some night-bird feeding; nothing could be seen, for the valley bottom was hidden by thick shadows and the moon had not yet risen, but presently there was the tiniest, light, high-pitched scream amongst the trees higher up the valley, and again it sounded directly behind us. The sound seemed to zig-zag between the trees, and suddenly a little brown bird flicked through a gap in the trees. It passed on behind us to the little marshy ground, for we could hear the peculiar croaking cry it made as it circled amongst the trees. But barely had we had time to realize that it was a Woodcock flying to its feeding-grounds when again the little croaking cry was heard, this time high above the trees, and, passing in a circle round us, a Woodcock flew into the moonlight. Its little head turned anxiously from side to side and his long beak showed out black in the pale light. It was a male Woodcock searching for a mate—a male will fly to the breeding-haunts in a park four or five times and will then fly off with his mate, who has been brooding her eggs, to the feeding-grounds.

The clearing seemed alive with Woodcocks zig-zagging through the trees, for we were in the middle of the feeding-grounds.

All at once, through the space between two huge leafless oaks, darted a pair of Woodcocks, following each other and flickering between the open spaces. They came straight for us—to our little shelter—and settled amongst the dead leaves at our feet. Such neat and trim little birds they were, with the snow-flakes drifting past them and melting as soon as they touched their backs! One little fellow had evidently seen us, as he strutted about, for his protruding eyes were full of fear and mistrust. They whistled to each other and presently they flew off to the little marsh down the valley, their peculiar croaking cry getting fainter and fainter as they disappeared in the dense shadows.

We rose, all stiff and aching, from our bed of leaves—not an animal stirred—and, as the frosty night settled in, we found our way over the boundary wall to our camp on the hillside—a hungry vixen screamed as we lay by the fire and

we wished her good hunting.—ROBERT R. PAINE (age 16 years), *St. Loes House, Amberley, England.*

[American boys and girls will be interested in this vivid word picture of early spring in England. In England, however, as here, it is only those who dare the weather who get as close to nature as Robert.—A. A. A.]

AN ORPHAN ROBIN

On the rain-pipes under the eaves of our home, a pair of Robins built their nest where we had a good opportunity to watch them. Three eggs were laid and hatched. The baby Robins were about twelve days old when the mother bird disappeared. The father continued to feed them. Two days after the mother failed to appear, one of the little ones fell out of the nest. We put the baby bird back, and the father seemed greatly distressed. It fell out again. The father did not feed it, and we were afraid it might be hurt in falling, so we took it to our Audubon leader. She put it in a discarded nest. At night the nest was kept in the house, and at daybreak the little thing would call for food. He was fed worms and grubs, berries and bits of cherries and given water from a baby spoon whenever he seemed hungry. During the day the nest was put in a little basket and tied to a tree near the door.

I kept the Robin over one Sunday and once when he was hungry my brother referred to him as 'Petie,' and after that he went by that name.

He was about nineteen days old when his tail was so long that he would no longer stay in the nest. He was given every opportunity to be a wild bird. An aluminum band was placed on his leg with 'Pete' engraved on it. He was soon flying everywhere and learned to dig his own worms, pick up ants, and take a bath. At first he came to the doorstep early in the morning and called for food, and often during the day. We noticed that he slept a good deal. He liked bread and milk, cooked peas, but best of all he liked cherries. As he grew larger he came and begged for cherries, and he would alight on one's shoulder and pick the cherries from a person's mouth.

When he was first taught to pick up his own food it was funny to see him open his mouth before the worm which was dug for him, and speak to it, as if he expected the worm to crawl in his mouth. He must have liked red for he would pick at anything red, even the disk on the camera.

He was a full-sized bird when the band on his leg was made more secure one evening. It was done very carefully, but he must have resented it, for he never came back to us. 'Petie' had been handled very little. That fact, and having plenty of water with every meal, we think are partly the reasons why we were successful in raising him.—MARGARET KAY (age 13 years), *Milwaukee, Wis.*

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

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THEODORE S. PALMER, *First Vice-President* WILLIAM P. WHARTON, *Secretary*
FREDERIC A. LUCAS, *Second Vice-President* JONATHAN DWIGHT, *Treasurer*
SAMUEL T. CARTER, JR., *Attorney*

Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

A LARGE GIFT FOR WILD-LIFE PROTECTION

It will be a source of pleasure and gratification to members of the Association and the friends of wild life generally to learn that on March 1, 1922, the Association received a gift of \$200,000. This splendid donation was made by a friend of the birds and children, who for many years past has contributed with large liberality to the Association's efforts in working with young people. The development of the Junior Audubon Club idea on a large scale has been made possible only because of the generous support thus received.

All gifts from this friend of wild life have been made with the distinct understanding that the name of the donor be withheld, and it is with regret that in making the present announcement we are not at liberty to divulge his name.

This contribution is intended as a partial

endowment of the \$20,000 annual contribution which for a number of years he has been making to the Audubon work. Accompanying the check was the stipulation that the money should be held and known as the "Permanent Fund of 1922." Only the interest is to be used from time to time for current expenses, and by the conditions of the gift it is to be expended as follows:

1. For the education of the general public in the knowledge and value of useful, beautiful, and interesting forms of wild life, especially birds.
2. For the actual protection and perpetuation of such forms of wild life on suitable breeding and other reservations.
3. For protecting and maintaining adequate protection for such forms of wild life in all parts of the Western Hemisphere.
4. Or for any one of these purposes.

FEDERAL LICENSE AND GAME REFUGE BILL

On February 16 and 17, 1922, about thirty-five men, representing various National and local organizations, and also including game commissioners of several states, met in Washington and were given a hearing by the House

Agricultural Committee on the merits of the Anthony bill. This measure proposes to require a Federal hunting license of \$1 of all those in the United States who go afield to shoot migratory game-birds. No change in

the present laws affecting in any way the species that may be taken, or the season or time when they can be hunted, is involved in this proposed legislation. The idea simply is to collect a fund, 45 per cent of which can be used for the employing of Federal game-wardens to enforce the United States laws in reference to game- and non-game-birds. That there is a vast need for a largely increased warden force is apparent to all those familiar, even to a limited extent, with conditions that obtain in the hunting-fields. Likewise, 45 per cent of the income is to be used for the purchase of bird reservations and public shooting-grounds. The remaining 10 per cent is for overhead expenses.

The details of the meeting were directed by John B. Burnham, President of the American Game Protective Association, who had arranged for the hearing. Eight or ten of the friends of conservation who were present spoke in behalf of the measure, including the President of this Association. There were those present who were opposed to the

measure, chief among whom was Representative Ward, of North Carolina, who based his argument chiefly on the rather surprising conjecture that the entire bill was a scheme on the part of wealthy hunting-club owners in his home county to make it impossible for the poor man to hunt. Ex-Governor Riggs of Alaska spoke in opposition to one or two features of the measure which he felt should be modified to safeguard the interests of the people of Alaska.

The Anthony bill has already been reported favorably by the Senate Committee and is now pending in that body. Friends of Conservation are hoping very much that Congress may take favorable action on this important legislation during the present session.

At the request of the home office of the National Association of Audubon Societies, a large number of letters have been written to Senators and Congressmen by members of the Association and officials of affiliated clubs throughout the United States.

IMPORTANT NATIONAL PARK BILL

When Mr. Barbour's bill—H. R. 7452—to establish the Roosevelt-Sequoia National Park in California, was introduced, individuals and associations deeply interested in our National Parks protested against it, because its provisions did not except it from the Federal Water Power Act, and there was always the danger that if its water was seized for commercial purposes—power or irrigation—the rights of the public would be threatened.

These dangers were pointed out to the author of the bill, and he has now submitted from the Committee on Public Lands a bill which removes the threatened danger. He has added a fundamental amendment providing "that no permit, license, lease, or authorization for dams, conduits, reservoirs, power-houses, transmission lines, or other works for storage or carriage of water or for limits of said park shall be granted or made without specific authority of Congress."

It is now the duty of every citizen inter-

ested in our National Parks to write to his Congressmen and to his Senators, urging speedy and favorable action on the amended bill—H. R. 7452. These legislators should be told that the people urgently desire the passage of this bill.

In the enlarged park is to be included an area of nearly a thousand square miles directly adjacent to the present Sequoia Park on the east and north. It is a high country, without apparent economic possibilities for agriculture, grazing, or timber. It possesses marvelous natural beauties, which are constantly becoming better known and more admired. The park will be a splendid possession of the American people. We must all strive to impress our Representatives with its importance.

A statement similar to the above was sent recently to all members of the National Association, as well as to the officers of all affiliated organizations, with the result that many hundreds of letters and telegrams were

received by Senators and Congressmen in Washington. When legislative matters of National value are pending in Congress, it is of the greatest importance that friends of such measures should register their desire for speedy and favorable action. Our National

Representatives are human, just like the rest of us, and naturally are influenced by public sentiment. It is right that they should be so influenced, for they were elected to represent us and usually do so if we but make our voices heard.

NEW JERSEY LEGISLATION

The present session of the Legislature of New Jersey certainly established a new record for indifference in the matter of wild-life conservation. One year ago, a bill introduced at the request of the New Jersey Audubon Society, and pushed by that organization, for the purpose of taking the Bobolink off of the game-bird list and giving it protection, became a law. This did not please some people who wanted the pleasure of shooting these song-birds in autumn and enjoying their diminutive bodies on toast, so the Legislature this year proceeded to repeal the bill and the Governor gave it his approval.

The subject of legislation to restrict the number of vagrant cats has also been before this honorable body. Two bills were introduced, one by the State Board of Fish and Game Commissioners and the other by the New Jersey Audubon Society. The Commissioners' bill passed both Houses and was

vetoed by the Governor as "sumptuary legislation." The New Jersey Audubon Society's cat bill passed the House and at the present time is reposing in the Senate Committee where it may be expected to remain until the close of the session. This Legislature is also considering the advisability of putting a bounty of 10 cents on all Crows killed in the state. The fate of this measure is yet uncertain.

Another bill was introduced to take protection from the Kingfisher. This passed the House of Representatives and is now pending in the Senate, with a good chance of becoming a law.

Fortunately, the general attitude of the present session of the New Jersey Legislature toward wild-life conservation is not typical of that entertained by most state legislatures meeting this year, for many good laws were enacted.

BIRD-BOX CONTESTS

This is the season when contests in building bird-boxes are in full operation throughout the country. The annual contest provided by the *Pittsburgh Chronicle-Telegraph* closed early in March, with an unusually large number of competitors. Many hundreds of splendid, useful bird-boxes were constructed and will be erected in the neighborhood of Pittsburgh.

Many of the Audubon Societies and Junior Clubs are engaged in the same work. Mrs. C. Oliver Iselin, one of the active and loyal members of the National Association, has offered prizes for bird-boxes to be built by the young people of Aiken, S. C., near which her

winter home is situated. One set of six prizes is to be offered to boys, and another series is open to girl competitors.

From all parts of the country we have been receiving requests for information as to how to conduct contests of this character and suggestions as to lists of suitable prizes that may be furnished. This work of supplying nesting-places for the birds that in spring wing their way northward is becoming well established in hundreds of communities. Some of us can remember the time when a movement of this character was an unheard-of enterprise. The country is constantly growing better for wild bird life.

ENCOURAGING HUMANE WORK

Under the direction of Dr. William O. Stillman, President, the American Humane Association is erecting posters throughout the country calling attention to the 'Be Kind to Animals Week,' April 24-29, 1922. Prizes will be given for the best posters dealing with the subject.

In addition to the poster contest, prizes will be awarded by the San Francisco Society for the Prevention of Cruelty to Animals for

the best essays written by Boy Scouts on the protection of animals. The prizes are three, and the amounts \$25, \$15, and \$10.

Other prizes noted on the poster are two of \$25 each awarded by the National Association of Audubon Societies for the best essays on the protection and preservation of birds. One prize is open for competition for the Camp-Fire Girls and the other to members of the Girl Scouts organization.

INDIANA AUDUBON SOCIETY

This has been an exceptionally good year for our Society. Our membership has quadrupled and the interest in bird-protection and-conservation is very marked throughout the state.

Our Society published a spring bulletin and now has ready for printing a fall bulletin. We are also issuing, in coöperation with the Department of Education, an outline of bird-study for public schools prepared by Miss Rousseau McClellan, Supervisor of Nature Study of the Indianapolis schools. This bulletin is to be sent out by the Department of Education to every teacher in the state. We feel that it will be of great practical value to teachers, as it not only gives them detailed instructions as to how to organize their classes for bird-study, but is also a manual of how to conduct their classes. It is the purpose of the Society to encourage and stimulate bird-study in the public schools, and we expect large results from the work thus undertaken.

It is with genuine sadness that we record

the death of our beloved president emeritus, William Watson Woolen, which occurred March 26, 1921. Our Society joined with the Academy of Science and the Indiana Nature Study Club in a joint memorial meeting at Indianapolis, May 20 to 22. We greatly miss his counsel and advice. His presence was always a benediction. He died full of honor, love, and esteem of his fellow men and the abundant admiration of nature-lovers. His enthusiastic love of the birds and the out-of-doors will be a continual inspiration to our Society.

We have already appointed a committee to arrange the details of our annual meeting next May. The meeting will probably be at Indianapolis, and a program of unusual interest is being arranged, which will undoubtedly guarantee a large attendance. Our Society is planning to accomplish greater things during the coming year than it has ever heretofore attempted.—FRANK C. EVANS, *Secretary*.

CONSCIENCE MONEY

"*Dear Mr. Pearson:* Several years ago I bought a hat and let my milliner trim it according to her own taste. She used a small Heron Aigrette with other trimming. I knew nothing about them at that time, but since I learned the sad story of the Aigrettes the thought of that hat has been a painful one,

and the word Aigrette always brings to mind my own offense.

"I paid \$5 for that Aigrette. Inclosed find the same amount. I hope it may save an Aigrette and at the same time ease a conscience that has long been troubled."—(Signed) MRS. HIRAM TOWNS, *Milwaukee, Wis.*

NEW LIFE MEMBERS

Enrolled from January 1, 1922 to March 1, 1922

Auchincloss, Hugh D.
 Bowdoin, George
 Curtis, James F.
 Dowd, Joseph
 Kellogg, W. K.

Moore, Paul
 Moran, John A.
 Schumann, Mrs. J. H.
 Zimmerman, John

NEW SUSTAINING MEMBERS

Enrolled from January 1, 1922 to March 1, 1922

Abercrombie, Mrs. Ronald T.
 Armstrong, Mrs. Duane
 Atkinson, Mrs. H. M.
 Barghoorn, Dr. E. S.
 Bartol, Mrs. Henry G.
 Bechtold, Dr. A. Charles
 Bird, E. D.
 Blodgett, Miss Eleanor
 Burger, Miss Jeannette
 Chiniguy, William F.
 Clapp, Mrs. F. G.
 Clegg, Luther B. (Mrs.)
 Coker, Edward R.
 Dibell, Mrs. Dorrance
 Doane, Geo. W.
 Doering, O. C.
 Drummond, Mrs. E. J.
 DuBois, Mrs. M. B.
 Dudley, Miss Laura F.
 Duer, Mrs. S. Naudain
 Duke, Miss Doris
 Dumond, Mrs. Frank V.
 Eddy, Mrs. E. B.
 Edwards, Mrs. Wm. Seymour
 Farrand, Max, Mrs.
 Farrington, R. I.
 Fell, Mrs. Martha T.
 Fincke, Miss Nancy
 Fisher, Mrs. Janon
 Fulton, Miss D. G.
 Gale, Mrs. Wm. A.
 Gasch, Herman E.
 Gill, Mrs. Robert Lee

Godfrey, Mrs. W. H.
 Green, Master Merrill Mead
 Greig, Walter
 Hair, Mrs. Thomas R.
 Hamilton, Mrs. J. K.
 Hansman, Master Carl Morton
 Harrington, M. H.
 Huntsberger, Russell C.
 Jones, Geo. M.
 Lowry, Mrs. Robert J.
 Miner, Mrs. E. W.
 Moore, Theodore D. W.
 Murray, Mrs. Harriet G.
 New Canaan Bird Protective Society
 Pyle, Mrs. James Tolman
 Reid, Mrs. Bruce
 Reynolds, George G.
 Saginaw Reading Club
 Slaker, Mrs. H. J.
 Smith, Mrs. Flora C.
 Smith, Mrs. Maxwell
 Steagill, Miss Mary M.
 Stillman, William M.
 Thaxter, John
 Towns, Mrs. Hiram
 Trump, R. W.
 Van Ingen, Miss Anne H.
 Walter, Mrs. J. H.
 Wellington, Mrs. C. O.
 Wilson, Mrs. James G.
 Zimmer, G. M.
 Zimmerman, Miss A. W.

GOOD FOR VIRGINIA

It is a pleasure to note that the bill recently pending in the Virginia Legislature, to take all the funds from the sale of hunters' licenses and put them in the State Treasury instead of leaving them in the Game Protective Fund failed of passage.

Mr. Ernest C. Mead, Chairman of the Executive Committee of the Virginia Game and Game Fish Protective Association, says in a recent letter:

"I am pleased to advise the members of our Association that the General Assembly has defeated that part of the budget bill which

proposed to place all of the money from the State Game Department in the General Fund.

"If this bill had gone through, it would have been the ruin of our State Game Department. There is no question but that the defeat of this bill is due to the quick and effective work done by almost every member of the Association.

"In answer to the circular letter recently sent out, I received nearly 500 replies. Our Legislators were simply flooded with letters and telegrams from sportsmen throughout the state, urging them to defeat this bill."



GREEN-WINGED TEAL

Order—ANSERES
Genus—NETTION

Family—ANATIDÆ
Species—CAROLINENSE

National Association of Audubon Societies